

**MEN'S EXPERIENCES OF OUTDOOR RECREATION
IN
NEW ZEALAND**

A thesis submitted in partial fulfilment of the requirements for the Degree of
Master of Health Sciences in Men's Health in the University of Canterbury

By

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS	iii
ABSTRACT	iv
GLOSSARY	v
CHAPTER ONE: INTRODUCTION AND BACKGROUND	1
Introduction	1
Human Health, Natural Environments and Outdoor Recreational Activity	2
Outdoor Recreation in the USA and UK.....	5
Outdoor Recreation in New Zealand	9
Outdoor Programmes and Organisations	10
Summary	14
CHAPTER TWO: LITERATURE REVIEW	15
Inclusion/Exclusion Criteria and Search Strategy	15
International Literature	18
Physical Health.....	18
Mental Health	20
Social Health	25
Spiritual Health.....	28
Personal Development/Self-actualisation.....	31
New Zealand Literature.....	33
Physical Health.....	41
Mental Health	43
Social Health	45
Spiritual Health.....	46
Personal Development/Self-actualisation.....	46
Summary	47

CHAPTER THREE: METHODOLOGY	49
Introduction	49
Methodological approach	49
Trustworthiness.....	51
Summary	53
 CHAPTER FOUR: METHODS	 54
Ethical Considerations	54
Sampling Strategy	55
Participants and Recruitment Process	56
Data Collection	59
Data Analysis	60
Summary	63
 CHAPTER FIVE: FINDINGS AND DISCUSSION	 64
Key Theme 1: Health and Wellbeing Effects	64
Physical effects of tramping and fishing activities	65
Psychological and mental effects	69
Social dimensions of outdoor tramping and fishing activity	74
Self-actualization, personal development, and spirituality	80
Challenge and personal satisfaction.....	83
Key Theme 2: Early life influences that inspire passion for the outdoors and outdoor activities.....	88
Role of the father, family, and close friends	88
Schools and youth groups	93
Opportunities for independence and self-reliance	94
Key Theme 3: Outdoor environment preferences	97
Frequency and duration of tramping and fishing trips	100
Role in life: Part time hobby or serious pursuit?	103
Alternative and substitute activities.....	105

Key Theme 4: Reasons for preferred environments	109
Key Theme 5: Factors that influence choice of environment	111
Summary	115
 CHAPTER SIX: CONCLUSION	116
Research aim and methods	116
Key Findings	118
Limitations	121
Avenues for future research	122
 APPENDICES	126
Appendix A: Post Traumatic Stress Disorder (PTSD)	126
Appendix B: Overview of International Literature	128
Appendix C: Overview of New Zealand Literature	133
Appendix D: Human Ethics Approval Letter	138
Appendix E: Participant Information Sheet	139
Appendix F: Consent to Participate Form	142
Appendix G: Information Flyer	144
Appendix H: Interview Questions for Anglers	146
Appendix I: Interview Questions for Trampers	147
 REFERENCES	148

List of Tables

Table 1. Adult participation in sport and recreation activities in any given week.....36

Table 2. Ten most popular outdoor recreational activities by gender36

Table 3. The top ten outdoor recreational activities by age and gender.....38

Table 4. Top ten outdoor recreational activities by ethnicity39

Table 5. Participation in recreation in built and natural settings40

Table 6. Most popular built facilities and natural environment settings for recreation & sport in New Zealand40

Table 7. Popular reasons for participation in sport and recreational activity 41

List of Figures

Figure 1. Average number of walking, easy tramping, and hard tramping tracks within 2 hours of where people live by Department of Conservation Conservancy (Brabyn & Sutton, 2013).35

Figure 2. Gender participation in sport and recreation activities37

Figure 3. Participant Recruitment Process57

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ABSTRACT

The health and wellbeing benefits that result from exposure to natural environments through various outdoor recreational activities are the subject of ongoing investigation. Within the resulting interdisciplinary literature, the impact of specific outdoor recreational activities for men's health and wellbeing is less well understood. This research examined the experiences of men who enjoy fishing and/or tramping in the New Zealand outdoor environments, and the role that these outdoor activities fulfilled in their lives.

A qualitative descriptive approach using semi-structured interviews and open-ended questions was used to document the experiences of 10 men who undertook tramping or fishing excursions on a regular basis. A thematic analysis approach identified five key themes in their responses. Participants experienced health-related benefits across the physical, mental/psychological, social, personal development, and self-actualization domains. The reduction of stress was a prominent experience for all participants. In addition, the early life influence of fathers, families, close friends, schools, and youth group programmes was found to be instrumental in men developing committed and enduring healthy attitudes to natural environments, and to their pursuit of outdoor recreational activities.

There are ample opportunities for further research into the significance of outdoor recreation in natural environments for men's health in New Zealand. Such research might employ longitudinal approaches to measure the permanence of improved health and wellbeing outcomes for men who regularly participate in specific outdoor recreational activities (e.g. camping, tramping, fishing, hunting, biking, diving, skydiving, water skiing and canoeing/kayaking). The accessibility and affordability of outdoor recreation for men warrants further investigation, particularly for men from lower socio-economic households, minority ethnic groups, and those with disabilities. Future research might also investigate the significance of regular early life exposure to outdoor recreational activities for the health and wellbeing of male teenagers, and whether any positive effects of early life exposure might transfer into adulthood. Research in these and related areas has the potential to deepen our understanding of the role that regular participation in outdoor recreational activities in natural environments can play for men's health and wellbeing.

GLOSSARY

For the purposes of this thesis, the following terms and definitions will apply:

Adventure Therapy: as a therapeutic or otherwise specified intentional process, adventure therapy can be defined as “paying attention to the opportunities that individuals may be challenged with, through adventure activities, to experience greater self-understanding and personal wellbeing” (Pryor, 2009, no pagination).

Experience: is defined by The Free Dictionary (2015, no pagination) as “active participation in events or activities, leading to accumulation of knowledge or skill” and by Cambridge Dictionaries (2015) as “the process of getting knowledge or skill from doing, seeing, or feeling things” (no pagination). Accordingly, an ‘experience’ is an individual’s perception of the same activity, experienced differently from one individual to another, on emotional, cognitive, and/or practical reaction levels.

Health: is understood as “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” (World Health Organisation (2015). Health of physical, mental, and social wellbeing, all of which can be positively or negatively influenced by personal and/or environmental dynamics.

Holistic Health and Well-Being: takes into consideration the physical, mental, social, and spiritual health and wellbeing dimensions of an individual and their lifestyle as a whole (Ministry of Education, 2014; Durie, 1998).

Mental Health: is defined “as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community” (World Health Organisation, 2015, no pagination). Accordingly, mental health is the overall condition of an individual’s emotional and psychological wellbeing. This allows an individual to function normally in society, using their cognitive and emotional abilities to meet the ordinary demands and stresses that everyday life places on them.

Nature Assisted Therapy (NAT): nature-assisted therapy is a form of outdoors therapeutic treatment using plants and/or outdoor environments to assist recovery, rehabilitate patients, or treat specific conditions through connection with nature. NAT programmes include horticultural therapy, wilderness based activities, or simple access to green spaces within a community (Annerstedt & Wahrborg, 2011).

Nature Based Adventure Therapy (NBAT): encompasses various programmes undertaken in natural wilderness areas where outdoor adventure and/or recreational activities are used to achieve the overall therapeutic or otherwise specified goals and objectives of the particular programme. Where applicable NBAT is used to avoid confusion with other programmes that have the same, similar, or overlapping goals and objectives. Some examples include:

- Adventure Based Counselling or ABC (Shoel, Prouty, & Radcliffe, 1988).
- Adventure Based Wilderness Therapy or ABWT (Russell, 2001; Gass, 1993).
- Adventure Based Therapy or ABT (Gass, 1993).
- Bush Adventure Therapy or BAT (Dickson, Gray, & Mann, 2008).
- Expeditioning (Crisp, 1998).
- Expedition-Based Wilderness Programme or EBWP (Greffrath, Meyer, Strydom, & Ellis, 2012).
- Long Term Residential Camping or LTRC (Gass, 1993).
- Outdoor Adventure Therapy or OAT (Annerstedt & Wahrborg, 2011).
- Outdoor Behavioural Healthcare Therapy or OBHT (Outdoor Behavioural Health Care Industry Council, n.d.).
- Outdoor Behavioural Healthcare or OBH (Russell & Hendee, 2000).
- Outdoor Education or OE (Pryor, Carpenter, & Townsend, 2005).
- Nature Therapy or NT (Newes, 2001).
- Therapeutic Recreation or TR (American Therapeutic Recreation Association, 2004).
- Wilderness Adventure Therapy or WAT (Crisp, 1998).
- Wilderness Therapy or WT (Annerstedt & Wahrborg, 2011; Russell, 2001; Crisp, 1998; Gass, 1993).

Natural Environments/Nature: any natural, rural, remote, or outdoors environment that incorporates wilderness areas such as bays, beaches, caves, dams, estuaries, forests, grasslands, lakes, mountains, national parks, rivers and river flats, sea, streams and surf, and the flora and fauna that are found in these environments.

Outdoor Adventure and Recreational Activities: activities undertaken by individuals in their free time that fulfil their particular needs and wants, which include a physical element (leisurely or structured physical activity), are not predominantly motivated by competition, and are undertaken in natural, rural or wilderness environments. A wide range of leisure, adventure, sporting, and recreational activities can be undertaken in a variety of outdoor environments. Such activities include:

- Adventure Racing
- Backpacking
- Cycling
- Camping
- Canoeing
- Canyoning
- Caving
- Golf
- Fishing
- Hillwalking
- Horseback Riding
- Hunting
- Kayaking
- Mountaineering
- Mountain bike riding
- Orienteering
- Parachuting
- Photography
- River rafting
- Rock climbing
- Running
- Sailing,
- Skiing,
- Surfing,
- Swimming
- Tramping/Hiking

(Florida Department of Environmental Protection, 2014).

Physical Activity: is defined by the WHO (2015) as “any bodily movement produced by skeletal muscles that requires energy expenditure” (no pagination). This includes myriad everyday activities such as walking, washing the dog, washing the car, gardening, domestic chores, walking up and down stairs, grocery shopping, and moving furniture around.

Personal Development: personal development is a lifelong process. It is a way for people to assess their skills and qualities, consider their aims in life and set goals in order to realise and maximise their potential. Personal development is the intrinsic growth of an individual that enables him/her to become more aware and accepting of his/her inner feelings, belief systems,

potential, and capabilities, helping the person to live to their fullest as a conscious, contributing, and healthy human being (Skillsyouneed, 2017).

Physical Exercise: physical activity that is intentional, structured, organised, and repetitive for the purpose of conditioning any part of the body. Physical exercise may be used to improve physical health, lose weight, maintain fitness, and assist with physical rehabilitation. Exercise is a specific form of physical activity and includes a wide variety of indoor and outdoor sports and recreational activities (The Free Dictionary, 2015).

Physical Health: the overall physical condition of a living organism at a given time. It is the soundness of the body, freedom from disease or abnormality, and the condition of optimal well-being. It is when the body is functioning as it was designed to function (Kurtus, 2013).

Self-actualization: all individuals have an instinctive need for personal development which occurs through a process called self-actualisation. Self-actualization is the achievement of one's full potential through creativity, independence, spontaneity, and a grasp of the real world ((Maslow, 1970; Self-actualization, n.d.).

Social Health: encompasses the ability to relate and communicate with other people, form and maintain mutually beneficial and satisfying interpersonal relationships, friendships, and family relationships. This results in healthy social support and important feelings of caring, compassion, bonding, and belonging (Welsh Government, 2014; Ministry of Education, 2014).

Spiritual Health: spiritual health is a personal matter involving the way people live in relation to their values, beliefs, ethics, morals, principles, self-concept, and their search for purpose and meaning. Spiritual health may be linked to organised religion for some, while for others there is no religious link whatsoever. For many people, spirituality is linked to an inner sense of meaningfulness, peace and calm, and deeper or higher connection with themselves and the natural world (College of Medicine, 2015; Ministry of Education, 2014).

The Great Outdoors: any natural, rural, remote, or outdoors environment that incorporates wilderness areas such as bays, beaches, caves, dams,

estuaries, forests, grasslands, lakes, mountains, national parks, rivers and river flats, sea, streams and surf, and the flora and fauna that are found in these environments.

Therapeutic Landscape: a natural environment or setting that may be conducive to promoting physical, mental, social, and spiritual health, and/or personal development/self-actualization, through outdoor adventure and recreational activity.

Wellbeing: an individual's subjective experience of his/her life across its physical, mental, social, personal development, and spiritual dimensions. A good self-concept and awareness of self can result in happy, pleasant, and positive emotions that induce feelings of overall well-being and contentment (Alberta Centre for Wellbeing, 1989).

CHAPTER ONE: INTRODUCTION AND BACKGROUND

Introduction

The aim of this research is to examine men's experiences of outdoor recreation in New Zealand, specifically within the fishing and tramping demographic of the Canterbury region. This chapter provides an introduction and background to the research, focusing on the positive connection between human health, natural environments and outdoor recreational activity. A background to the origins of outdoor recreation is provided, using the USA, the UK, and New Zealand as primary examples, a choice that reflects the pioneering contributions of these countries to the development of modern day outdoor recreational facilities, structures, and knowledge. The background to contemporary outdoor activity based programmes and organisations is also briefly discussed.

Natural environments have long been used by many cultures, communities, and individuals for recreational and recuperative purposes. Worldwide, there are countless outdoor adventure and recreational clubs, associations and organisations that cater for people's recreational and/or adventure activities of choice. Many people seek to unwind and de-stress on the weekends, during school and public holidays, or whilst on annual leave, in an effort to escape the daily humdrum 'bump and grind' of life, work, and multiple responsibilities. Some people de-stress and refresh by enthusiastically pursuing their choice of outdoor adventure or recreational activity. Others simply prefer relaxing on the beach, swimming in the sea, or playing beach volleyball with family and friends. For many, socialising around a campfire on the shores of a lake or riverbank, after a good day spent pursuing an activity of choice, is the perfect way to rest and recuperate. Whatever the activity or outdoor location of choice may be, recharging mental and physical energy,

reconnecting with oneself and others, and 'relaxing' within the unique specialness and splendour of the great outdoors can have positive and long lasting effects on health and wellbeing.

This preference for regular connection with outdoor environments can be seen in Sport New Zealand's (2015) nation-wide sport and recreation survey. The survey found that 82.4% of males in New Zealand had participated in some kind of recreational activity in a natural environment in the preceding 12 months. The top three outdoor recreational activities for men were walking, fishing, and cycling.

The following four sections of this chapter will provide a background to human health in relation to natural environments and outdoor recreational activity, including the background to outdoor recreation in the USA, UK, and New Zealand. Some examples of outdoor based programmes and organisations are also provided.

Human Health, Natural Environments and Outdoor Recreational Activity

Across the centuries, many cultures and prominent philosophical thinkers have viewed exercise and outdoor activities in nature to be of therapeutic value. Plato, who believed that outdoor experiences would result in healthy bodies and therefore healthy 'souls' in the domain of emotions, feelings, and personalities, argued that "the moral value of exercises and sports far outweighed the physical value" (Plato, 1920, p.6). The 17th century poet John Dryden wrote, "The wise, for cure, on exercise depend" (cited in Spencer, 1990) and Jean-Jacques Rousseau (1712-1778), one of Europe's most influential thinkers and philosophers during the 18th century, recognized the importance of learning and experiencing through nature, in

nature, and about nature (Miles & Priest, 1999). Gillis (2006) writes that some of the earliest recorded efforts to utilize natural environments on a therapeutic basis for humans can be dated back to May 15, 1817 with the opening of the Friends Asylum Hospital on 58 acres of rural farmland in Philadelphia USA. Friends Hospital staff introduced a number of innovative therapeutic concepts for the mentally ill, based on the following progressive ideas:

- The healing potential of providing humane treatment for the mentally ill in a natural environment.
- Allowing patients to work in the hospital gardens was a fundamental aspect of their treatment recovery.
- Interaction with pets and domestic animals on the farm provided high therapeutic recreational value.

These progressive concepts and ideas appear to be one of the first organized attempts by a modern western society to provide a therapeutic landscape, in a natural environment, for the treatment of the mentally ill (Friends Hospital, 2014; Annerstedt & Wahrborg, 2011). This approach to seeking to facilitate healing by placing people in natural environments was continued, albeit inadvertently, in 1901 at the Manhattan State Hospital East. At this time, 40 patients suffering with tuberculosis were 'housed' in tents on the hospital's lawns to isolate them from the general hospital population. Astonishingly, these patients showed a marked improvement in both physical and psychological health. As a result of these observations, the mental health services brought selected psychiatric patients out of the hospital buildings and 'housed' them in tents on the hospital grounds. Once again, many patients demonstrated noticeable physical and psychological improvement and this form of treatment became known as 'tent therapy'. There followed

many anecdotal and unofficial reports regarding this therapy, but these unfortunately failed to present any solid scientific evidence in support of the treatment's efficacy. The literature in regards to this therapeutic approach all but disappeared over the next few years (Davis-Berman & Bennan, 1994).

In the 1920s, the focus on utilising outdoor environments as a form of therapeutic landscape re-emerged with the establishment of the 'Camp Ahmek' programme, run in the Canadian Ontario wilderness by Taylor Statten. The Taylor Statten 'Camp Ahmek' programmes came to be respected and valued for five particular characteristics:

1. Their dedicated attention to health and safety.
2. A focus on holistic personal development and change.
3. A strong camp culture centred on moral values, tradition, appreciation, and respect for the natural environment.
4. The programme's foundation was based on learning skills for life.
5. A focus on identifying and unlocking, in youth, individual potential to become outstanding future leaders, supported by measurable outcomes.

(Taylor Statten Camps, 2014; Dimock & Hendry, 1939).

Following on from the Taylor Statten 'Camp Ahmek' concept, Dr Kurt Hahn's concept of experiential education, personal development and responsibility, and learning in natural environments also began gathering momentum in the 1920s. Dr Hahn and Prince Max von Baden co-founded the Salem Boarding School in Germany, in April 1920. Dr Hahn developed his progressive ideas over 13 years at Salem School until fleeing Nazi Germany in 1933 for the United Kingdom, where he settled in Scotland. Dr Hahn continued with his influential and inspiring work when he founded the Gordonstoun Boarding

school in Scotland in 1934. Since that time, Gordonstoun has developed into one of Britain's most distinguished and innovative schools. Dr Hahn's original concept of experiential education is still a core characteristic that can be found in many of today's outdoor activity based programmes (Kurt Hahn Organisation, 2015; Outward Bound, 2015).

In their research based book on Wilderness Therapy, Davis-Berman and Bennan (1994) claim that the potential healing and restorative qualities of the natural environment, and its uniqueness to effect growth and positive change for individuals was commonly identified in early literature (Backus, 1947; Scheidlinger & Scheidlinger, 1947; Zander, 1947).

Outdoor Recreation in the USA and UK

In the 19th century the sociological, economic, and health related benefits of recreational access to natural environments was acknowledged by the American National Park movement, which ensured vast areas of wilderness and other significant scenic landscapes in the USA became protected as National Monuments or Parks. These protected areas became very popular with visitors during the early part of the 20th century. The Civilian Conservation Corps of the New Deal under the 1930s depression era legislation was responsible for much of the early infrastructure development in these protected areas (Bell, Tyrvaenen, Sievanen, Probstl, & Macaskill, 2007; Carr, 2007).

After the end of the Second World War and the Korean War, outdoor recreation became an increasingly important aspect of leading a healthy and balanced lifestyle in the United States, with more Americans visiting national parks than ever before. At this time funding from Congress had not increased

from pre-World War II levels, however, and with the disbandment of the Civilian Conservation Corps and other New Deal programmes, the state of national parks in the United States deteriorated significantly. In order to address this national problem, in 1956 the federal government initiated a ten-year, billion dollar programme aimed at developing and modernising the nation's outdoor recreational infrastructures and standards by 1966. The programme was named 'Mission 66' to highlight the 10 year time frame given to effect the proposed development and modernisation of outdoor infrastructures and operating standards. The programme encompassed:

- Development of tracks, trails, and access to campsites in wilderness areas.
- Development of educational and adventure based facilities, public amenities, and improved access to car parking.
- Development of natural and cultural history centres.
- Development of visitor information centres.
- The upgrading of all employee residences.
- Modernised equipment and uniforms.

(Siehl, 2008; Carr, 2007)

So important had outdoor recreation in natural environments become to Americans that it became a major focus of federal planning and policy in 1958. Two national outdoor recreation review commissions were established, the Outdoor Recreation Resource Review Commission and the President's Commission on American Outdoors (PCAO). Their purpose was to make available, to Congress and the President, the latest findings and recommendations in regards to the nation's efforts to ensure the ongoing

accessibility of natural recreational resources, and the availability of outdoor recreational opportunities for all Americans (Siehl, 2008; Carr, 2007).

Mission 66 was a resounding success in the United States and some international ripples of its effectiveness can be found today in the approach to outdoor recreational policy in countries like Denmark, Norway, Sweden, the UK, Australia and New Zealand. Recreational policies in these countries generally acknowledge the importance of development and modernisation of outdoor recreational infrastructures, equipment, staff uniforms, employee conditions and standard operating procedures, but with national, regional, and cultural differences (Carr, 2007). Although outdoor recreation in these countries has tended to focus on wilderness areas, as is the case in the United States, there has also been a major emphasis on creating local parks and ensuring natural environments are easily accessible to the public on a day to day basis. In Scandinavian countries, for example, the traditional belief in 'everyman's right' has resulted in far more countryside and wilderness being available for public access than in America (where there are very strong private property rights). Similarly, in the UK new legislation in 2004 resulted in more private land becoming available for public recreational activities than ever before (Bell et al., 2007).

In mid and late 19th-century Britain, the middle and upper classes came to the point of view that by introducing certain sports and physical activities to the working class and general population, an acceptable and respectable social order could be created. The established elites had major concerns in regards to the ever-increasing sedentary lifestyles of the working class and general population, as well as moral judgements regarding what they viewed as drunken and disorderly behaviour, conducted in public without lawful regulation or in local public houses (Tomlinson, 2010).

In response to these concerns, a social and moral reforming movement comprised of various 'rational recreation' reforming groups emerged. These groups included churches, priests, school teachers, landscape architects, park planners, and government officials, who together began to develop public parks, outdoor recreation areas, sporting facilities, and libraries, with the aim being to improve the recreational pastimes of the working class and general population. Rational recreationists originated from within the ranks of the middle classes, reflecting their fear of the working class and the disruption they might pose to orderly urban life (Townson, 1997). The objective was to discourage the lower classes from drinking, fighting, gambling and pursuing other behaviours that were viewed as uncivilised and anti-social. The lower classes had no problem with accepting the development of sporting and recreational facilities and opportunities. However, the moral message that the rational recreation reformers had wanted to express was largely ignored and rejected (Tomlinson, 2010; Godbey, 2009).

Nonetheless, creating opportunities for the public to undertake outdoor recreational activities remained a priority for these 19th century British 'rational recreation reformers' in spite of the fact that, at the time, their convictions regarding the health benefits of outdoor recreational activities were very much an 'act of faith'. In the present day, the same health benefits that the 19th century planners so faithfully believed in are repeatedly being quantified, verified, and scientifically documented (Outward Bound USA, 2014; Nozik, 2013; Gass et al, 2012; Greffrath et al 2011; Townsend & Weerasuriya, 2010; Godbey, 2009; Dickson et al., 2008; Bell et al, 2007; Gillis, 2006; Lynch, 2005).

Outdoor Recreation in New Zealand

Natural environments have long been used by New Zealanders for recreational, adventure, therapeutic and outdoor learning purposes (Sport New Zealand, 2015; Booth, Lynch, McLean & Walker, 2011; Dalziel, 2011). A significant step in New Zealand's evolving status as an internationally recognised recreation destination was the creation of the Tourism Department in 1901. This government agency set in motion an ongoing international tourism and recreation promotion package based around Rotorua, Tongariro, Mt Cook, Queenstown, and Milford Sound. At the time, access to remote areas for recreational pursuits was limited for New Zealanders. Access to these remote areas for day trips or overnights was by way of sea for those New Zealanders who wanted to explore and experience these remote wilderness environments. Short overland trips to accessible mountain ranges and the surrounding wilderness were also possible from various settlements. The introduction and development of railway lines and trains from the late 19th century through to the 1930s had a significant impact on New Zealanders, as this infrastructure enabled much better access to previously unreachable environments (Ministry for Culture and Heritage, 2014). It was with the advent of cars and bus services, however, that New Zealanders were finally afforded independent access to most backcountry environments. New Zealanders could now pursue a multitude of outdoor recreational activities in previously inaccessible locations, and an exciting new public appreciation developed for the country's unique and diverse wilderness environments (Department of Conservation, 2014; Ministry for Culture and Heritage, 2014).

A strong connection developed between New Zealanders who enjoyed the experience of being in the outdoors and their desire to protect these

environments. New Zealanders began to form various clubs (e.g. fishing, tramping, hunting, camping, skiing) and these clubs helped to develop recreational opportunities while also contributing towards the conservation and management of natural environments. Overnight tramping huts are a good example of New Zealand's outdoors social history. Members of New Zealand's first tramping club, the Tararua Tramping Club, built the Field Hut in the Tararua ranges of the North Island in 1924 for example. It was built to accommodate the ever-increasing popularity of the Tararua Ranges Southern Crossing passage between Otaki forks on the western side, and the Kaitoke basin on the eastern side. It is the oldest surviving recreational hut in the Tararua Ranges (Department of Conservation, 2014).

Outdoor Programmes and Organisations

In the development of outdoor recreation practices, programmes, and initiatives within the aforementioned countries, a number of organisations have risen to international prominence.

One of the world's best known and longest running outdoor based programme organisations is Outward Bound International. Outward Bound International is the membership organisation serving Outward Bound schools located in 33 countries, on six continents, operating in an array of diverse wilderness environments, and catering for more than 250,000 participants worldwide every year. The origins of contemporary Outward Bound programmes began with Dr Kurt Hahn's progressive and inspiring experiential education concept that he introduced as co-founder of Salem School in Germany in the 1920s, and further developed at Gordonstoun School in Scotland from 1934. The evolution of Outward Bound continued in Wales in 1941 when Dr Hahn and Sir Lawrence Holt began running outdoor survival programmes designed to

teach young British seaman the skills to survive World War II. These programmes became known as 'Outward Bound', which is the nautical term used to describe a ship leaving the safety of its harbour for the open seas. Dr Hahn's evaluations throughout his progressive programmes led him to determine that mental and emotional factors were just as important, and at times, even more important than physical strength and fitness in life or death survival circumstances.

Dr Hahn further developed his programmes by refining and then combining the principles of his wilderness survival and rescue training techniques, with experiential education and social cooperation philosophies (Outward Bound USA, 2015; Gillis, 2006; Lynch, 2005). Hahn successfully merged the powerful personal experience of individuals discovering a sense of self-worth and identity, building self-esteem, discovering previously hidden natural capabilities, and developing an awareness of responsibility toward others with his original concept of experiential learning. Josh Miner, an American who had taught under Hahn in Britain, later employed Hahn's principles, philosophies and unique teaching model to found the first Outward Bound School in the USA in 1961. The first USA based Outward Bound course occurred in 1962 when a group of 35 students were led into the Colorado Rocky Mountains for a 15-day wilderness experience (Outward Bound USA, 2015; Gillis, 2006; Lynch, 2005).

The Outward Bound concept of utilising natural environments, outdoor activities and experiential learning to facilitate the development, healing, health and wellbeing of people spread rapidly round the world in the 1960s and 1970s. Since that time, this concept has evolved into many different therapeutic, adventure based, and recreational organisations and programmes with a multitude of approaches, formats, and objectives,

conducted in a diverse range of natural wilderness in New Zealand and internationally. Some examples include:

- Sport New Zealand, whose priority outcomes include seeing more young people, adults, and community organisations engaging in sport and recreation country wide (Sport New Zealand, 2014).
- St John of God Waipuna's adventure therapy programmes that take young at risk New Zealanders into the wilderness to undertake a series of challenging adventure experiences. These nature based adventure therapy challenges, in conjunction with professional facilitation, provide the opportunities to address addiction issues, facilitate personal development and an enhanced self-concept, as well as building resilience and life/relationship skills (St John of God Trust, 2015).
- The Oregon based charitable non-profit Mentor Research Institute that specialises in referrals, education, advice, and information for families, individuals and professionals regarding the many various wilderness therapy treatment programmes available for at risk youth and troubled teenagers (Mentor Research Institute, 2011).
- The Australian Association for Bush Adventure Therapy Inc. (AABAT). Bush Adventure Therapy is a diverse field of practice that combines adventure activities undertaken in outdoor environments with the goal being to achieve particular therapeutic outcomes for the participants. AABAT Inc. is a professional body for adventure therapy practitioners who are involved in supporting, developing, and promoting the field of bush adventure therapy in Australia (AABAT Inc., 2013).
- The California Department of Parks and Recreation's 'Statewide Comprehensive Outdoor Recreation Plan' (SCORP) whose primary purpose is to research and provide all stakeholders (government, public, investors) with the latest information relating to the health and social benefits of outdoor recreation (California Department of Parks and Recreation, 2015).

- The National Recreation and Park Association (NRPA) is the leading non-profit organisation in America involved in the promotion and progression of public parks and recreation, conservation, and environmental projects that support and enhance the health, wellness, and quality of life for all people (NRPA, 2014).
- The UK based Wilderness Foundation that runs a range of experiential therapeutic wilderness based programmes that are conducted in natural, wild, or remote outdoor settings in the UK and Europe (Wilderness Foundation, 2012).

Today in New Zealand and around the world there are numerous outdoor activities based programmes and organisations that provide opportunities for a multitude of diverse outcomes, objectives, and pursuits, all of which can positively benefit the holistic health and wellbeing of a worldwide demographic of populations, communities, and people. Potential benefits may include:

- Appreciation of natural environments and the potential ‘therapeutic landscapes’ nature offers us (Boyes, 2012; Annerstedt & Wahrborg, 2011).
- Appreciation for conservation and preservation of natural environments (Department of Conservation (DOC), 2014; Brabyn & Sutton, 2013).
- Recreational participation, enjoyment, relaxation, recovery, and social connection (California Department of Parks and Recreation, 2015; Bowler et al. 2010).
- Adjunct treatment (adjunct treatments are used to assist the primary treatment) for various addiction, mental health, and behavioural disorders (Jansen & Pawson, 2011; Lynch, 2005; Mossman, 2005).
- Personal development, self-efficacy, self-discovery, and improved self-concept (Outward Bound International, 2015; McKay, Donaldson, & Schroder, 2009; Martin & Legg, 2002)

- Improved levels of physical, mental, social, and spiritual health (Sport New Zealand, 2015; Townsend & Weerasuriya, 2010; Bowler, Buyung-Ali, Knight, & Pullin, 2010; Godbey, 2009; Bell, Tyrvaenen, Sievanen, Probstl, & Simpson, 2007).

Summary

In this chapter, I have provided an introduction and background to my research. The potential health and wellbeing benefits of outdoor recreational activities are discussed in the next chapter, where I review the findings of numerous studies, both international and New Zealand based. In chapter three I detail the research methodology and then, in chapter four, I describe the specific methods used in this study. I present and discuss the findings of my own research in chapter five, noting connections between these finds and the existing research literature. In chapter six, I summarise the findings, comment on the limitations of my research, and provide suggestions for further investigation.

Before continuing, I wish to acknowledge that research has shown that there can be negative outcomes and safety concerns associated with outdoor recreation and adventure activities in wilderness environments. I also acknowledge that many studies demonstrate the positive health and wellbeing benefits that can be experienced from the pursuit of indoor recreational and physical activity. This work is not disputed in any way, shape or form. But it is simply not part of the focus of this project, which instead centres on the positive health and wellbeing benefits that people may experience through the pursuit of *outdoor* recreational and adventure activities in *natural* settings.

CHAPTER TWO: LITERATURE REVIEW

Inclusion/Exclusion Criteria and Search Strategy

The rationale for the selection and inclusion of the studies, articles, reports, and publications reviewed was to identify a broad spectrum of both international and New Zealand research based on the following inclusion criteria:

- Peer reviewed and published literature that focused on the positive health and/or wellbeing benefits of outdoor recreation and activities undertaken in natural environments, including a small selection of grey literature and first hand anecdotal evidence based on the relevance and credentials of the original sources.
- Research that was male specific or included findings on males in comparison to females relating to outdoor recreation, fishing and tramping (hiking), was initially a primary objective. However, much of the sourced literature was not gender specific, and included both the adult and adolescent demographic, and many different forms of outdoor recreational activities undertaken in a broad spectrum of natural environment settings in America, Australia, Canada, Europe, Scandinavian, South Africa, New Zealand, and the United Kingdom.
- Preference was given to relatively recent studies (2000- 2015), along with a selection of seminal pre-2000 literature, that were considered pertinent to the research topic and closely matched the selection criteria.

Research studies were excluded from the review if they:

- Focused on the positive health and wellbeing benefits associated with *indoor* recreational and physical activity.
- Promoted indoor recreational and physical activity over and above outdoor recreational and physical activity.

- Focused on the negative outcomes or safety concerns associated with outdoor recreation and adventure activities in natural environments.

Potentially relevant literature was identified by electronically searching the following databases and websites:

- www.biomedcentral.com
- www.childrenandnature.org/research
- www.corrections.govt.nz/resources/
- www.cnr.uidaho.edu/wrc/
- www.digitalcommons.library.umaine.edu
- www.dro.deakin.edu.au/browse/index.php
- www.ebscohost.com/academic/sportdiscus-with-full-text
- www.google.com
- www.guides.lib.ucdavis.edu/PSYCHOLOGY/PsyINFO
- www.informahealthcare.com/
- www.ir.canterbury.ac.nz
- www.journals.elsevier.com
- www.ncbi.nlm.nih.gov/pubmed
- www.onlinelibrary.wiley.com
- www.oric.org.au/research_projects
- www.sagepublications.com
- www.scholar.google.com
- www.sciencedirect.com

To identify relevant literature, the following search terms and key words were used either individually or in various combinations:

- Adventure Based Therapy, Adventure Based Courses, Adventure Based Interventions, Addiction, Alcohol.

- At-Risk Youth.
- Behavioural Disorder, Dysfunction, Behavioural Change, Behavioural Issues.
- Benefits of Outdoor Recreation, Benefits of Connection with Nature.
- Experiential Learning.
- Healing Potential, Health and Wellbeing, Exercise, Nature, Outdoors, Wilderness, Recreation, Personal Change, Growth, Awareness, Development, Psychological
- Men's Health, Mental Health, Male Addiction, Poor Health, Outdoor Pursuits, Natural Environments.
- High-Risk Youth, High Risk Youth, Interventions.
- Outdoor Therapeutic Interventions, Outdoor Education, Approaches, Methods.
- Recreation, Restoration, Recovery, Nature, Natural Environments.
- Spirituality, Awareness, Connection, Nature, Wellbeing.
- Therapeutic Landscapes, Trauma, Healing, Health and Wellbeing.
- Wilderness Adventure, Recreation, Therapies, Healing.

One hundred and eleven international literature publications were considered for review. Twenty eight articles best met the selection criteria for review (see appendix B). Seventy three New Zealand literature publications were considered for review. Twenty of these articles best met the selection criteria for review (see appendix C).

In what follows, the international literature is reviewed first, followed by the New Zealand literature. The rationale for this structure was to highlight the

similarities, differences, and potential gaps that may exist between available international research in comparison to what is available from New Zealand

International Literature

The international literature on the benefits of outdoor recreational activities undertaken in natural environments will be reviewed under five key headings: Physical Health, Mental Health, Social Health, Spiritual Health, and Personal Development/Self-actualization. The subsequent review of the New Zealand based literature will follow the same structure.

Physical Health

Numerous physical health benefits have been identified for people who regularly undertake some form of outdoor activity in natural environments. Outdoor recreational activity in natural environments has been shown to significantly reduce levels of obesity while assisting with healthy weight loss and management (Annerstedt & Wahrborg, 2011; Townsend & Weerasuriya, 2010; Godbey, 2009; Dickson, Gray, & Mann, 2008). Reduction of high blood pressure (Townsend & Weerasuriya, 2010; Godbey, 2009; Van den Berg, Hartig, & Staats, 2007), reductions in levels of Cardio Vascular Disease (Annerstedt & Wahrborg, 2011; Townsend & Weerasuriya, 2010; Dickson, et al. 2008), improved levels of healthy sleep (Bowler, Buyung, Knight, & Pullin, 2010; Townsend & Weerasuriya, 2010; Godbey, 2009), and significantly lower levels of diabetes (Annerstedt & Wahrborg, 2011; Townsend & Weerasuriya, 2010; Godbey, 2009) were all associated with outdoor physical activity and connection with nature. Additional health benefit findings include reduction of arthritic and spinal pain, and strengthening of muscle, joints and bone (Godbey, 2009), and increased levels of energy and physical prowess

(Bowler et al, 2010; Brymer, 2005). Many studies noted improved levels of overall physical wellbeing through physically challenging and/or passive physical exercise in outdoor environments (Outward Bound , 2014; Nozik, 2013; Obrien, Morris, & Steward, 2012; Townsend & Weerasuriya, 2010; Godbey, 2009; Gillis, 2006; Townsend & Ebden, 2006; Lynch, 2005; Fluker & Turner, 2000).

The many physical benefits that can be experienced through the pursuit of outdoor recreational activities are well summarised in Godbey's (2009) review paper, entitled 'Outdoor Recreation, Health, and Wellness: Understanding and Enhancing the Relationship'. Godbey summarizes the salient points from 162 US and European studies where the findings supported the health and wellbeing benefits of outdoor activities in natural environments. His review highlights how the pursuit of physical activity in outdoor environments may improve the health and wellbeing of participants. Godbey also describes various approaches to measuring physical activity, recent trends in outdoor activity, and the variables that affect participant activity in outdoor environments, including projected demographic changes (e.g. an ageing population) that will likely influence policy-making in this domain.

Godbey (2009) notes that exposure to natural environments through outdoor activity is positively linked to reduced risk of experiencing all of the following conditions: stroke or heart attack, blood pressure, obesity, type 2 diabetes, unhealthy stress, and mood disorders. In addition, outdoor recreation is associated with reduced levels of certain types of pain (arthritic and spine), and increased muscle, bone, and joint strength, good sleep, physical fitness, weight loss and improvements in a person's overall sense of wellbeing.

The potential of outdoor recreation to reduce stress is important, because people with high stress levels are more at risk of contracting the common cold or influenza viruses, having a heart attack, or being diagnosed with cancer (Godbey, 2009). Stress is also linked to obesity, high blood pressure and heart disease as well as various mental health disorders. Furthermore, spending more time indoors rather than outdoors tends to lead to increased snacking on energy dense but generally nutritionally deficient foods. In contrast, when people are actively involved in outdoor pursuits in natural environments there is a decreased likelihood of overeating and an increased likelihood of general wellbeing (Godbey, 2009).

Mental Health

The research-based evidence on the mental health benefits associated with outdoor recreation in natural environments continues to grow. Significant health improvements have been recognised for people diagnosed with Alzheimer's disease and schizophrenia after undergoing Nature Assisted Therapy (Annerstedt & Wahrborg, 2011), and for children struggling with ADHD who have consistent connection with, and exposure to nature (Godbey, 2009). Significant reductions in stress and anxiety have also been identified in research on the restorative potential of natural environments (Gass, Gillis, & Russell, 2012; O'Brien et al, 2012; Greffrath, Meyer, Strydom, & Ellis, 2011; Bowler, 2010; Townsend & Weerasuriya, 2010; Godbey, 2009; Bell et al, 2007; Van den Berg, Hartig, & Staats, 2007; Townsend & Ebdon, 2006; Gillis, 2006; Lynch, 2005; Fluker & Turner, 2000).

Physical activity in outdoor environments has also been linked to significantly lower levels of depression and related mood disorders (Outward Bound USA, 2014; Nozik, 2013; Gass et al, 2012; Greffrath et al 2011; Townsend &

Weerasuriya, 2010; Godbey, 2009; Dickson et al., 2008; Bell et al, 2007; Gillis, 2006; Lynch, 2005). People diagnosed with PTSD seem to respond very well to the therapeutic benefits of undertaking physical activity in the great outdoors (Seahorn & Seahorn, 2015; Georgia Southern University, 2014; Nozik, 2013; Gobin, 2012; Miller, 2012; McManus, 2011; Neill, 2009; Newes, 2001).

A number of studies link outdoor physical recreation with improved mood (Nozik, 2013; O'Brien et al, 2012; Greffrath et al, 2011; Townsend & Weerasuriya, 2010; Godbey, 2009; Bell et al, 2007; Townsend & Ebdon, 2006; Brymer, 2005, Fluker & Turner, 2000), with enhanced levels of mental attention, awareness, and capacity (Obrien, 2012; Bowler, 2010; Brymer, 2005), improved quality of sleep (Townsend & Weerasuriya, 2010; Godbey, 2009; Bell, 2007), and increased levels of positive thoughts and feelings of confidence, motivation, enjoyment, purpose, and interest in life (Nozik, 2013; Obrien, 2012; Bell et al, 2007; Townsend & Ebdon, 2006).

In their study on the psychological benefits of walking, Johansson and Hartig (2011) noted that the highest levels of revitalisation were experienced by solo walkers in outdoor park environments (as opposed to people walking with a friend, or walking alone in a street environment). Participants preferred walking solo in an outdoor parks environment but least preferred walking alone in a street environment. Similar findings were noted by Hartig and Staats (2006), whose work on restorative environments suggested that, when psychological restoration was the motivating factor, people preferred to walk in a forest environment compared to a city centre. Brymer (2005) and Fluker and Turner (2000) described participants experiencing 'endorphin type' natural highs in their studies of 'extreme sports' like base jumping, and white water rafting respectively. Endorphins are a class of polypeptides that

occur naturally in the brain. High levels of these peptides help to reduce the sensation of pain, and can affect emotions in ways that result in feelings of happiness, excitement, and fulfilment (Dictionary of Student Science, 2014).

Using the great outdoors as a restorative environment to run specifically designed, challenging outdoor activity based programmes in natural environments (Nature Based Adventure Therapy or NBAT) for individuals (especially at-risk/high risk youth) with co-existing mental health and substance abuse problems has become a widely accepted and effective treatment modality in today's world. Individuals who took part in, completed, or continued to take part in NBAT programmes all experienced lower rates of substance relapse and/or abuse, and reduced levels of depression and anxieties compared to those that did not take part in, complete, or continue with NBAT programmes (Gass, Gillis, & Russell, 2012; Janson & Pawson, 2009; McKay, Donaldson, & Schroder, 2009; Neill, 2009; Dickson, et al., 2008; Gillis, 2006; Lynch, 2005; Jansen, 2004; Newes, 2001; Russell & Hendee, 2000).

Further evidence of the mental health benefits that can be experienced from connecting with nature through outdoor recreation and activity can be found in the literature on progressive, alternate, and complementary treatments for Post-Traumatic Stress Disorder (PTSD) and associated co-morbid complications (see appendix A). There appears to be much more grey literature and anecdotal evidence supporting these benefits compared to research based evidence. However the available research based evidence seems to support the grey literature and anecdotal evidence, and the findings seem to be consistent between both types of literature (National Centre for PTSD, 2015; Hartman, 2012; Erickson, 2011; Pandzic, Mclay, & Morrison, 2010; Iribarren, Prolo, Neagos, & Chiappelli, 2005; Moore & Russell, 2002).

Much of the evidence supporting NBAT as a treatment for PTSD symptoms comes from the participants themselves and/or from clinical teams and organisations that research, support, and run approved NBAT programmes for sufferers of PTSD (Outward Bound USA, 2015; Project Odyssey, 2015; The Sierra Club, 2015; U.S. Army Morale, Welfare and Recreation Programme, 2015; Central Texas Veterans Health Care System Programme, 2012; Warrior walk 'Walk off the War' Programme, 2012). These programmes are specifically designed to focus on those whose lives have been disrupted by PTSD, and by comorbid complications like depression, anxiety, phobias, panic disorders, sleep disorders, sadness, loneliness, self-destructive behaviours, and substance abuse. To date these programmes are proving to be effective in helping to reduce the severity of symptoms of PTSD. The National Centre for PTSD (American Department of Veteran Affairs) acknowledges that well over 20% of Iraq and Afghanistan veterans suffer from PTSD and/or comorbid complications and that between 30 and 40% of these veterans might develop some type of psychotic disorder.

Dr Sharon Wills, the team leader of the Austin Post Traumatic Stress Disorder Clinical Team based at the Central Texas Veterans Health Care System is a strong advocate of NBAT for the treatment of PTSD. Dr Wills suggests that NBAT is an effective complementary and alternative treatment for PTSD. Dr Wills and her team participated in a six-day Outward Bound sailing expedition, along with a group of returned servicemen struggling with PTSD. Dr Wills states that even anecdotally the returned servicemen reported regaining feelings that were previously subdued, and regained the ability to experience certain emotions. The veterans also reported an improved sense of cooperation with other people and the ability to connect to reconnect with others. Dr Wills maintains that NBAT in association with other

complementary treatments like Tai Chi, meditation, massage, acupuncture, horticulture, and relaxation techniques; and evidence based therapies like Cognitive Processing Therapy, Prolonged Exposure EMDR (Eye Movement Desensitization & Reprocessing) and pharmacology, are effective in the treatment of PTSD (Institute for Defence and Government Advancement, 2012)

Since early 2008, the Sierra Club's Military Families Outdoors program has offered free trips, through Outward Bound's Veterans Expeditions, to veterans who have served in the Gulf, Somalia, Iraq, or Afghanistan wars, or who are still serving. Dr Matthew Friedman, executive director of the US Department of Veteran Affairs, and himself a veteran, states that “we know that wilderness heals, we just don’t know if it heals PTSD” (McManus, 2011, para. 3). However Dr Friedman adds that even if NBAT programmes do not completely ‘cure’ PTSD, they most certainly can, and do, reduce many of the stresses and complications that impede PTSD recovery. Friedman points out that after a few weeks of challenging outdoor recreation in wilderness country, “we all return from an outdoor activity feeling better about ourselves, our world, and our colleagues” (McManus, 2011, para. 23).

The Warrior Hike “Walk off The War” Program founded in 2012 by Sean Gobin, a veteran of three combat deployments to Iraq and Afghanistan, is assisting in the recovery of many combat and wartime veterans diagnosed with PTSD. Gobin hiked all 2185 miles of the American Appalachian Mountain trail, following in the steps of a World War II veteran Earl Shaffer. In 1948, Shaffer told a friend he was going to “walk off the war”. Four months later, Earl Shaffer became the first person to hike the entire length of the Appalachian Mountain Trail from Georgia to Maine. Shaffer maintains his epic walk worked the “sights, sounds, and losses of World War II” out of his

system. Gobin maintains that over the duration of their long distance hike (tramp) along the Appalachian Mountain trail, the time, space, and opportunity for participating veterans to “decompress” from their military service will present itself, allowing them to come to terms with their wartime experiences. When together on their “Walk off the War” journey, veterans learn how to use the great outdoors as an alternative and complementary therapeutic tool in the treatment of their PTSD and its comorbid complications (Gobin, 2012).

Social Health

There is a strong social health connection associated with many forms of outdoor recreational activities. For instance Annerstedt and Wahrborg (2011) and Townsend and Weerasuriya (2010) reported social connection and rehabilitation occurring in gardens, parks, and bushlands. Annerstedt and Wahrborg referred to ‘horticultural therapy’, an approach directed towards people with pre-defined clinical conditions, and therapeutic horticulture aimed at improving general wellbeing. These horticultural programmes involved either group or individual activity with plants, gardening, and nature. Likewise social connection for like-minded nature lovers through the pursuit of outdoor activities like bird watching, plant and tree identification, bush walking, tramping, and community eco conservation projects were all positive factors in social health (O’Brien, 2012; Godbey, 2009; Townsend & Ebdon, 2006).

Socialising with friends and connecting with other people on wilderness adventure trips like white water rafting (Fluker & Turner, 2000), extreme sports such as base jumping, big wave surfing, free climbing, and wild water kayaking (Brymer, 2005), and on challenging outdoor personal development/

team building programmes (Outward Bound, 2014), were important factors in the maintenance and development of healthy forms of social connection and belonging. Similarly, the importance of social bonding and camaraderie is a major factor contributing towards the healing and recovery of returned wartime veterans struggling with PTSD and comorbid complications. Veterans form close bonds with each other while experiencing the positive grounding effect, beauty and healing power of nature when undertaking challenging wilderness trails (Outward Bound, 2015; Nozik, 2013; Gobin, 2012; McManus, 2011). Research on NBAT programmes has consistently shown that one of the main positive outcomes experienced by those who participate and complete these programmes is significant improvements in the social behaviours that affect personal, inter-personal, and familial relationships (Dickson, et al., 2008; Gass, Gillis, & Russell, 2012; Pryor, Carpenter & Townsend, 2005; Martin & Legg, 2002; Russell, 2002; Russell & Hendee, 1999; Hattie, et al., 1997; Martin & Legg, 2002; Neill and Richards, 1998).

The California Department of Parks and Recreation's 'Statewide Comprehensive Outdoor Recreation Plan' (SCORP) primary purpose is to research the positive impact that parks and outdoor recreation can have on the physical, mental, and social health of individuals and their communities and to provide government, the public, investors and developers with the latest information relating to the health and social benefits of outdoor recreation (California Department of Parks and Recreation, 2015).

Compelling research evidence supports the social benefits and positive impact that outdoor recreational activities can have on communities, individuals and the environment. Such findings are the result of extensive statewide evaluations in association with widespread public input, including:

- Six focus groups involving 81 health and recreation experts statewide.
- Public agency director survey: 295 respondents.
- Public survey involving 5,421 adults and 410 youth respondents.

The authors maintain that social conditions can influence the way people work, live, and recreate, and that improved social conditions can be attained through park and outdoor recreational activities. Such recreation in turn strengthens and maintains healthy communities. Closeness and easy access to parks and outdoor recreation facilities can help to promote social connection and cleaner, safer, more harmonious communities, as well as a sense of responsibility and ownership. Personal, interpersonal, and familial bonds are improved when families, friends, and people of all ages, including seniors and those with disabilities, recreate together in parks and outdoor environments.

The authors conclude that parks, outdoor environments, and recreational opportunities can promote and maintain healthy family, friend, and community bonds for life (California Department of Parks and Recreation, 2015). Similar findings from the systematic literature reviewed for this study suggest that outdoor physical recreation can assist with the development of social bonds through family unity and cohesion; the promotion of cultural diversity and harmony; strengthening of communities and reduction in crime; stimulation of social connection through volunteerism; support for at risk youth; support for those with disabilities; and support for senior citizens.

Spiritual Health

The dimension of spiritual health is possibly the most subjective of the five themes identified in this review. There is no one specific definition that can completely or adequately summarize spiritual health. Organized religion and prayer can most certainly be considered part of spiritual health, depending on an individual's beliefs. However, spiritual health can also include non-religious belief in a higher intelligence, higher power, or universal life spirit. For some, spiritual health may mean regular introspection and deep reflection to find inner hope, peace and a higher purpose, meaning, and value to their existence (Heintzman, 2012, 2013). An individual's physical, mental, and social health may also be positively influenced by higher levels of spiritual health, resulting in a positive state of holistic health and wellbeing (Rowe, 2015).

The spiritual benefits of connection with nature through outdoor activities encompass for some people the opportunity for deep inner reflection, self-connection, and awareness (Outward Bound USA, 2014; Nozik, 2013; Gass et al., 2012; Greffrath et al, 2012; Obrien et. al., 2012; Greffrath et al 2011; Dickson, et al., 2008; Bell et. al., 2007; Nicholls & Gray, 2007; Lynch, 2005; Brymer, 2005; Martin & legg, 2002). Deep feelings of gratitude to be alive in the solitude and specialness of wilderness have also been noted (Nozik, 2013; Greffrath et al, 2012; Gobin, 2012; McManus, 2011; Bell et al., 2007), along with a deep appreciation for nature and what it can offer in terms of healing, health, and wellbeing (Heintzman, 2013; Nozik, 2013; O'Brien, et al., 2012; Williams, 2010; Heintzman, 2009). Experiences of tranquillity and serenity were consistently reported, including the high importance placed on alone time or 'solo experiences' by participants in these studies. Solo experiences can be defined as intentional periods of solitude in the

wilderness and can be achieved, for example, by sitting alone watching a full sunset/sunrise, going for a solo hike, or pitching one's tent away from the main camp for the night. This personal time spent alone in the uniqueness of wilderness may support a person's sense of connection to a deeper truth and spiritual awareness, which in turn may facilitate learning, personal understanding, and acceptance (Greffrath et al., 2011, 2012; Bowler, 2010; Williams, 2010; Nicholls, 2008; Bell et al., 2007; Nicholls & Grey, 2007; Brymer, 2005).

Given the findings and opinions expressed by Nicholls and Grey (2007), Bell et al. (2007), Nicholls (2008), and Greffrath et al. (2011, 2012), it is surprising that more research has not been undertaken in regards to the relationships between spirituality, health and well-being and using nature as a therapeutic landscape. Indeed in her article 'Spiritual Therapeutic Landscapes and Healing', Williams (2010) questions why so little research has been undertaken in this specific field. Williams acknowledges that the larger cultural geographical literature has examined some of the spiritual aspects related to certain therapeutic landscapes, and this has highlighted their importance for many different groups around the world. However, the ever increasing evidence supporting the positive relationships between nature, therapeutic landscapes, spirituality and good health and wellbeing makes for a compelling case for further study into spiritual places in nature, and the health and wellbeing benefits that can be experienced through this connection.

Paul Heintzman, an associate professor in the Faculty of Health Sciences, University of Ottawa, has written numerous papers, articles, and systematic reviews of empirical research on nature based recreation, leisure, and spirituality. Heintzman (2013) reports that a number of quantitative studies in

Canada and the United States show how important the spiritual aspects of people's wilderness experiences are to them. In one major study involving backcountry hikers visiting Canada's Prince Albert National Park, it was found that 45.8% of respondents indicated that reflection on spiritual values whilst hiking through the wilderness was important to them. In the United States, a national study of personal wilderness experiences involving 429 subjects who participated in various outdoor recreational activities found that 80% of the participants reported a 'spiritual connection' in nature. Another US based study found that of 62 mountain bike riders and 49 wilderness hikers, 11 percent of the participants described spiritual benefits such as experiencing a sense of connectedness and oneness with nature and the universe, including a sense of peace, serenity, and inner strength (Heintzman, 2013).

In his research report 'Spiritual outcomes of wilderness experience: A synthesis of recent social science research', Heintzman (2012) suggests that quantitative studies show that between 46% to 69% of wilderness enthusiasts are seeking or experience spiritual outcomes. According to Heintzman's research findings, pursuing outdoor recreational activities in wilderness settings provides the opportunity to experience spiritual outcomes like connection with 'a deeper source', 'God', or some type of 'Higher Power'. Furthermore, wilderness enthusiasts, and particularly those who are able to experience solitude in nature, may experience a tangible sense of wonder, awe, relaxation, inner calm, serenity, and deep inner reflection resulting in self-discovery and personal growth. The physical and mental challenges of wilderness adventure activities, such as hiking to the top of a mountain or rafting down a white water river, have been associated with spiritual experience; and different types of wilderness activity can produce various spiritual outcomes (e.g. group wilderness canoeists experienced 'spiritual

interconnection with other people', while solo canoe paddlers and hikers taking in the panoramic view from a mountain peak experienced peaceful contemplation of their problems, finding solutions and answers and a sense of renewal and tranquillity).

Empirical research continues to highlight the positive relationships than can exist between spirituality and wilderness experience. The evidence suggests that wilderness enthusiasts experience various spiritual benefits as a result of their connection with nature. The wilderness setting, type of wilderness activity, group members, and opportunity for solitude are all contributing factors towards the spiritual benefits experienced by wilderness enthusiasts (Heintzman, 2009).

Personal Development/Self-actualisation

In his book 'Motivation and Personality', Maslow (1970) proposes that all individuals have an inherent need for personal development through a process he calls 'self-actualisation'. According to Maslow, self-fulfilment and the human need to reach full potential (i.e. self-actualisation) are intrinsic to the human condition. Maslow (1970) writes that "[a]ll individuals have the need to see themselves as competent and autonomous, also that every person has limitless room for growth" (p.388).

Many researchers, article writers, and research project findings have highlighted the 'personal growth, awareness, and inner change' that individuals can experience through undertaking some form of physical activity in a wilderness setting. This personal growth, awareness and inner change can result in improved levels of self-belief, self-reliance, self-esteem and self-confidence (Outward Bound, 2014; Nozik, 2013; Gass, Gillis, &

Russell, 2012; Greffrath et al., 2011, 2012; Miller, 2012; McManus, 2011; Janson & Pawson, 2009; Dickson et al., 2008; Nicholls, 2008; Nicholls & Gray, 2007; Gillis, 2006; Brymer, 2005; Lynch, 2005; Martin & Legg, 2002; Russell, 2002; Newes, 2001; Neill & Richards, 1998). Another consistent finding was the emergence, in some participating individuals, of latent 'leadership qualities', particularly within the at-risk/high-risk youth and young adult demographic (Outward Bound, 2014; Gass et al., 2012; Dickson et al., 2008; Janson & Pawson, 2009; Neill, 2009; Gillis, 2006; Lynch, 2005; Jansen, 2004; Lan, Sveen, & Davidson, 2004; Newes, 2001; Hattie et al., 1997).

Some of the best known and most successful outdoor adventure programmes are run by the organisation Outward Bound. Various Outward Bound schools can be found in 33 countries, operating in approximately 250 wilderness environments, serving well over 250,000 participants every year. Outward Bound wilderness based educational, motivational, and developmental programmes have been using physically and mentally challenging outdoor activities undertaken in natural environments for more than 50 years.

Outward Bound use the natural environment to facilitate personal growth and self-discovery, develop leadership and teambuilding qualities, increase levels of confidence, self-reliance and self-belief, as well as to 'facilitate' healing from grief and traumatic experiences. Although these programmes do not profess to have any 'clinically specific' therapeutic goals for their participants, they have helped to positively change and influence the lives of many individuals, families, and various groups, including at-risk youth, young adults, and war veterans struggling with PTSD and/or associated complications like depression, anxiety, and substance abuse. These positive and influential changes contribute to the holistic health and wellbeing of the

participants, their families, friends, and the greater community as a whole (Outward Bound International, 2015; Outward Bound USA, 2015).

(See appendix B for an overview of the international literature reviewed here).

New Zealand Literature

In New Zealand, large sections of the general population are involved in outdoor recreational activities on a regular basis, in particular over the Christmas and other school holidays. Both Pakeha and Maori cultural values associate natural environments and outdoor activities with holistic health and wellbeing, through the pursuit of various recreational, sporting, or adventure based activities (Dalziel, 2011; Espiner, Gidlow, & Cushman, 2011; Booth, 2006). Outdoor recreation offers opportunities for many varied benefits, including better levels of physical fitness, improved levels of mental wellbeing, personal and professional development, educational achievements, social connection and development, appreciation and understanding of natural environments as well as business, marketing, and employment opportunities. Outdoor recreation creates value for most sections of our communities, through all phases of life, and there is an increasing body of research literature to support this (Sport New Zealand, 2014; Dalziel, 2011). Sport New Zealand (2014) summarise these traditional cultural ideals succinctly with the following quote, “New Zealanders participate regularly in outdoor recreation because they understand and value its contribution to their quality of life” (p. 4).

There is a multitude of recreational, sporting, and adventure based organisations, associations, and clubs that utilise New Zealand’s natural

wilderness environments to the fullest in the pursuit of various outdoor activities. In addition, many hundreds of thousands of New Zealanders enjoy some form of outdoor recreational activity in a private capacity. New Zealand has some of the best natural wilderness in the world with public access to a wide selection of sea, surf, mountains, snow, caves, lakes, rivers, valleys, forests, and beach environments. More than thirty per cent of New Zealand's total land area is managed by the Department of Conservation (DOC) for the purposes of recreational, scientific and conservation benefit. In so far as recreational and sporting organisations and opportunities are concerned, New Zealanders are spoilt for choice and have a wide selection of outdoor activities to choose from, according to what best suits their recreational or sporting preferences (Sport New Zealand, 2015; DOC, 2014).

Overall, walking is the most popular outdoor recreational activity in New Zealand. Figure 1 over shows the average number of short walking, easy walking/tramping, and long hard tramping tracks within 2 hours of where people live by Department of Conservation Conservancy (Sport New Zealand, 2015; Brabyn & Sutton, 2013).

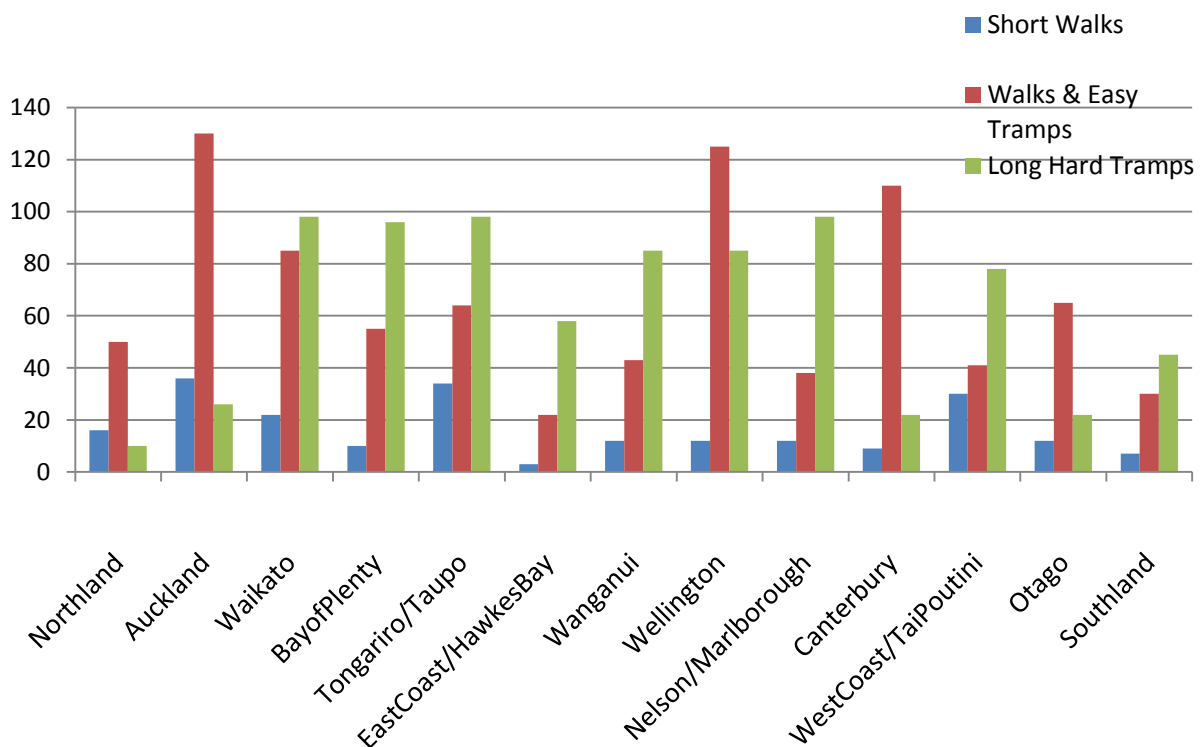


Figure 1. Average number of walking, easy tramping, and hard tramping tracks within 2 hours of where people live by Department of Conservation Conservancy (Brabyn & Sutton, 2013).

According to the results of a nation-wide Sport and Active Recreation Survey involving males and females (ages 16-75+) (Sport New Zealand, 2015):

- Every year around 1 million adults in New Zealand volunteer in sport and recreation activities.
- In any given week, 74% of New Zealand adults (2,452,000 people) participate in sport and recreation activities (see table 1 below).
- Walking was the most popular activity across both genders over a 12-month period. Women walked significantly more regularly compared to men. Fishing was the second most popular activity for men, while swimming was the second most popular activity for women (see table 2 below).
- On average, women engage in sport and recreation activities more frequently than men (see figure 2 below).

Table 1. Adult participation in sport and recreation activities in any given week

	%	N
ALL ADULTS	74.0	2,452,000
GENDER		
Men	72.4	1,151,000
Women	75.5	1,301,000
AGE (YEARS)		
16-24	77.1	407,000
25-34	75.0	386,000
35-49	74.3	649,000
50-64	74.0	587,000
65-74	76.2	291,000
75+	59.4	133,000

Table 2. Ten most popular outdoor recreational activities by gender

MEN		%	N	WOMEN		%	n
1	Walking	46.8	744,000	1	Walking	72.2	1,245,000
2	Fishing	29.2	465,000	2	Swimming	33.1	570,000
3	Cycling	28.4	451,000	3	Equipment-based exercise	21.7	374,000
4	Swimming	27.0	430,000	4	Cycling	21.6	372,000
5	Equipment based exercise	23.2	370,000	5	Jogging/running	18.1	312,000
6	Jogging/running	20.3	323,000	6	Pilates/yoga	16.6	287,000
7	Golf	15.0	238,000	7	Dance	14.1	243,000
8	Tramping	11.2	178,000	8	Aerobics	13.4	231,000
9	Football	10.5	167,000	9	Fishing	10.5	181,000
10	Hunting	9.7	154,000	10	Tramping	8.3	144,000

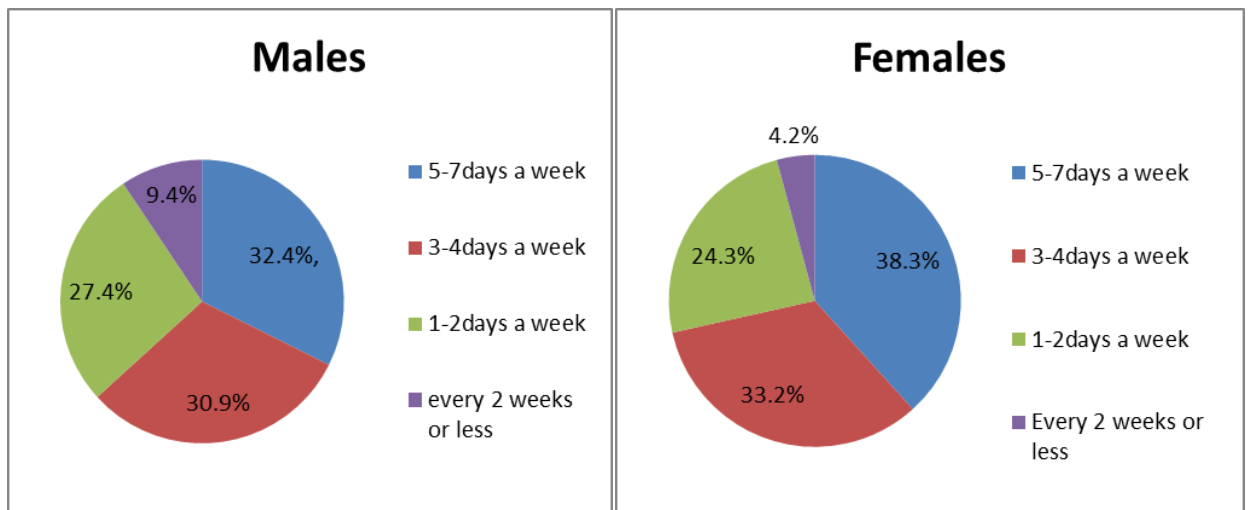


Figure 2. Gender participation in sport and recreation activities

Table 3. The top ten outdoor recreational activities by age and gender

16-24 years		%	N	25-34 years		%	N
1	<i>Walking*</i>	40.5	214,000	<i>Walking</i>	51.7	266,000	
2	<i>Swimming</i>	37.6	198,000	<i>Swimming</i>	35.9	185,000	
3	Jogging/running	33.4	176,000	Jogging/running	29.5	152,000	
4	<i>Equipment exercise</i>	28.5	150,000	<i>Equipment exercise</i>	26.2	135,000	
5	<i>Cycling</i>	23.3	123,000	<i>Cycling</i>	25.3	130,000	
6	Netball	16.5	87,000	<i>Fishing</i>	21.0	108,000	
7	Touch rugby	15.5	82,000	Pilates/yoga	16.8	86,000	
8	<i>Fishing</i>	14.4	76,000	Aerobics	15.0	77,000	
9	Football	14.3	75,000	Dance	11.1	57,000	
10	Dance	13.9	74,000	Tramping	10.3	53,000	
35-49 years		%	n	50-64 years		%	n
1	<i>Walking</i>	62.6	547,000	<i>Walking</i>	69.3	549,000	
2	<i>Swimming</i>	35.7	312,000	<i>Cycling</i>	27.0	214,000	
3	<i>Cycling</i>	33.0	288,000	<i>Swimming</i>	26.4	209,000	
4	<i>Equipment exercise</i>	26.0	227,000	<i>Fishing</i>	22.8	181,000	
5	Jogging/running	24.4	213,000	<i>Equipment exercise</i>	19.9	158,000	
6	<i>Fishing</i>	23.5	205,000	Golf	11.3	89,000	
7	Pilates/yoga	12.1	106,000	Jogging/running	10.4	83,000	
8	Tramping	11.8	103,000	Tramping	9.9	79,000	
9	Canoeing/kayaking	10.7	94,000	Dance	9.9	78,000	
10	Golf	10.5	92,000	Pilates/yoga	9.4	75,000	
65-74 years		%	n	75 + years		%	N
1	<i>Walking</i>	72.2	275,000	<i>Walking</i>	61.7	138,000	
2	<i>Swimming</i>	20.5	78,000	Bowls	12.1	27,000	
3	<i>Cycling</i>	15.8	60,000	<i>Equipment exercise</i>	10.4*	23,000	
4	<i>Fishing</i>	15.2	58,000	<i>Swimming</i>	8.1*	18,000	
5	<i>Equipment exercise</i>	13.0	50,000	<i>Fishing</i>	8.0*	18,000	
6	Golf	11.8	45,000	Golf	7.0*	16,000	
7	Bowls	9.5	36,000	Callisthenics	5.8*	13,000	
8	Dance	9.4	36,000	Dance	5.3*	12,000	
9	Pilates/yoga	7.6	29,000	Exercising at home	4.3*	10,000	
10	Tramping	6.8	26,000	<i>Cycling</i>	3.4*	8,000	

Note: * = results from small survey sub-samples:

* Five of the top 10 activities, as indicated by bold and italicised font, were common across all age groups and genders.

Table 4. Top ten outdoor recreational activities by ethnicity

All Adults			NZ European	
		%		%
1	<i>Walking*</i>	60.9	<i>Walking</i>	63.3
2	<i>Swimming</i>	30.2	<i>Swimming</i>	31.2
3	Cycling	24.8	Cycling	28.4
4	<i>Equipment Exercise</i>	22.4	<i>Equipment Exercise</i>	22.8
5	<i>Fishing</i>	19.5	<i>Fishing</i>	20.9
6	<i>Jogging/Running</i>	19.2	<i>Jogging/Running</i>	19.2
7	Pilates/yoga	10.5	Golf	11.4
8	Dance	9.8	Tramping	10.7
9	Tramping	9.7	Pilates/yoga	10.6
10	Golf	9.6	Canoeing/kayaking	9.6
Maori			Pacific peoples	
1	<i>Walking</i>	47.1	<i>Walking</i>	51.7
2	<i>Swimming</i>	27.8	<i>Jogging/Running</i>	23.7
3	<i>Fishing</i>	27.5	<i>Equipment Exercise</i>	22.7
4	<i>Equipment Exercise</i>	21.9	<i>Swimming</i>	20.4
5	Cycling	19.1	Touch rugby	17.7
6	<i>Jogging/Running</i>	17.7	Dance	17.4
7	Dance	12.6	<i>Fishing</i>	14.9
8	Touch rugby	11.7	Netball	14.0
9	Netball	11.3	Volleyball	13.6
10	Aerobics	10.3	Rugby	13.5
Asian peoples			Other ethnicities	
1	<i>Walking</i>	52.3	<i>Walking</i>	61.2
2	<i>Swimming</i>	29.5	<i>Swimming</i>	35.2
3	<i>Equipment Exercise</i>	22.1	Cycling	28.5
4	<i>Jogging/Running</i>	18.1	<i>Equipment Exercise</i>	23.9
5	Badminton	14.9	<i>Jogging/Running</i>	20.8
6	Cricket	12.4	<i>Fishing</i>	16.5
7	Pilates/yoga	12.0	Tramping	15.6
8	<i>Fishing</i>	11.5	Pilates/yoga	14.9
9	Cycling	11.0	Aerobics	11.6
10	Football	10.3	Dance	11.5

*Five of the top 10 activities, as indicated by bold and italicised font, were common across all ethnic groups and genders.

Table 5. Participation in recreation in built and natural settings

	One or more built facilities	One or more natural settings
Gender	%	%
Men	89.8	82.4
Women	92.6	78.0
Age group (years)		
16-24	94.6	78.6
25-34	93.7	80.8
35-49	91.2	83.8
50-64	88.7	84.4
65-74	89.1	77.7
75+	90.3	52.3

Table 6. Most popular built facilities and natural environment settings for recreation & sport in New Zealand

		Men (%)	Women (%)
Ranking	Built Facilities		
1	Paths/cycleways/walkways in towns and cities	48.0	57.9
2	Indoors/outside at a residential setting	34.1	44.0
3	Outdoors sports facilities	40.3	21.7
4	Gym/fitness centres	22.1	21.5
5	Indoor sports facilities	22.6	17.1
6	Indoor pools/aquatic centres	15.7	20.7
	Natural Environment Settings		
1	Outdoor parks/green spaces in towns/cities	48.1	52.3
2	At the beach or by the sea	32.7	38.9
3	In or on the sea	36.6	21.5
4	In the bush or forests	29.7	27.0
5	On off-road bike/walking tracks	28.1	22.1
6	In the countryside or over farmland	25.4	22.7

Table 7. Popular reasons for participation in sport and recreational activity

Gender and Age Groups	Men	Women	16-24	25-34	35-49	50-64	65-74	75+
Reasons for participation	%	%	%	%	%	%	%	%
Fitness & health	88.4	92.9	91.8	94.0	90.9	89.1	90.4	83.9
Enjoyment	90.1	85.9	93.0	89.1	89.9	87.2	86.1	68.0
Social reasons	57.1	49.0	67.0	58.0	49.0	48.0	48.0	45.3
Low cost	40.4	48.4	50.7	49.7	45.6	44.5	36.2	23.8
Convenience	39.2	47.6	39.5	48.4	43.1	47.7	42.1	28.8
Sport performance	38.0	24.5	59.0	37.1	30.7	20.5	17.3	8.1
Cultural reasons	28.0	29.9	27.7	36.6	38.9	25.7	14.1	8.0

As table 7 indicates, the three most popular reasons for participation in sport and recreational activity, across genders and age groups, were fitness and health (90.7%), enjoyment/satisfaction (87.9%), and social reasons (53.1%).

Physical Health

Available evidence strongly highlights the potential health related benefits for individuals, families, and communities when they have access and opportunity to engage in various outdoor recreational activities. Experience in childhood and adolescence of what the great outdoors has to offer can instil an intrinsic sense of conservation ethos and appreciation for natural environments that may result in a lifetime interest in pursuing physical activities in outdoor environments, thereby promoting ongoing maintenance of physical fitness and overall good health (Brabyn & Sutton, 2013).

Regular outdoor physical activity (walking is the most popular physical activity in New Zealand) is a leading factor in the reduction of weight and management of obesity levels (Heart Foundation, 2015; Sport New Zealand,

2015; Ministry of Health, 2014; Brabyn & Sutton, 2013), as well as reduced levels of blood sugar and pressure, type 2 diabetes, heart disease, and stroke (Heart Foundation, 2015; Ministry of Health, 2014; Blaschke, 2013). Furthermore, because outdoor physical activity improves physical health and fitness, it also promotes overall physical wellbeing (Sport New Zealand, 2015; Ministry of Health, 2014; Blaschke, 2013; Brabyn & Sutton, 2013; Boyes, 2012; Lynch, 2012; Booth, 2011; Jansen & Pawson, 2011; Reis, Thompson, Lovelock, & Boyes, 2010; Waldegrave & Koopman-Boyden, 2010).

Physical exercise and outdoor activities has been shown to improve mobility, balance, heart rate and functionality, (Ministry of Health, 2014; Boyes, 2012; Waldegrave & Koopman-Boyden, 2010), as well as muscle strength and bone strength (Ministry of Health, 2014; Koopman-Boyden, 2010). Similarly, outdoor education (OE) and nature based adventure therapy (NBAT) programmes in New Zealand have facilitated and promoted physical health, fitness and development (Outward Bound NZ, 2015; Lynch, 2010; McKay, Donaldson, Schroder, 2009; Jansen & Pawson, 2009; Dickson, et al., 2008; Jansen, 2004; Martin & Legg, 2002; Eggleston, 1998).

Supporting the international evidence that links outdoor sport and recreational activities with physical health, Dalziel (2011) undertook a meta-analysis of more than 70 New Zealand sport and recreation research studies, finding that moderate physical exercise for at least 30 minutes on most days of the week could noticeably improve physical health and wellbeing. This resulted in increased work productivity and reduced absenteeism due to illness or injury. Improved physical health and wellbeing could also reduce premature death and incidences of preventable illness. Overall, the meta-analysis suggested that the pursuit of physical activities in natural environments had greater positive health effects than activities undertaken in

indoor environments (Dalziel, 2011). Similarly, regular active participation in recreational and leisure activities, in particular outdoor based activities, has been shown to be an important protective factor against common older age physical and medical conditions and impairments, including arthritis, circulatory and joint problems (Waldegrave & Koopman-Boyden, 2010).

Mental Health

Sport New Zealand (2015) report that 87.9% of all respondents in their 2014 national survey on sport and recreation participation cited enjoyment and satisfaction as the main reason for taking part in active recreation. The figure for males was more than 90%. Personal satisfaction and enjoyment promoted increased levels of positive mood and mental wellbeing.

Numerous studies have shown that outdoor recreational activity in natural environments can reduce levels of negative emotions, depression, and anxiety, and increase feelings of wellbeing, personal satisfaction, and positive mood (Ministry of Health, 2014; Moon, 2014; Blaschke, 2013; Brabyn & Sutton, 2013; Boyes, 2012; Reis, Thompson, Lovelock, & Boyes, 2010); improved levels of good sleep (Ministry of Health, 2014; Boyes, 2012; Espiner et al., 2011; Jansen & Pawson, 2011; Waldegrave & Koopman-Boyden, 2010); promoted enhanced mental concentration (Blaschke, 2013; Boyes, 2012; Waldegrave & Koopman-Boyden, 2010); and reduced levels of harmful stress (Sport New Zealand, 2015; Ministry of Health, 2014; Blaschke, 2013; Boyes, 2012; Galloway, 2012; Dalziel, 2011). Enhanced mood, mental wellbeing, and quality of sleep can prolong life expectancy, increase productivity in the work place, and promote personal satisfaction (Dalziel, 2011; Espiner, Gidlow, & Cushman, 2011; Waldegrave & Koopman-Boyden, 2010).

A number of studies and reports have suggested that simply being present in a wilderness environment, experiencing the uniqueness of wild surrounds, can produce strong feelings of 'being at one' with nature, personal contentment, relaxation and wellbeing (Galloway, 2012; Gidlow et al., 2011). Similarly, Moon (2014) summarized various research findings that revealed simple strategies may be effective in reducing levels of depression. Moon writes that a 2013 study undertaken at the Yamanashi Institute of Environmental Science in Japan found that exercising in nature, and thereby experiencing natural sounds like running water, wind moving through tree tops, and the song of wild birds, along with the scents of wild flowers, pine, and other forest scents, could improve both mood and motivation, and reduce the production of stress hormones like cortisol. The reduction in the levels of stress hormones like cortisol then decreased activity in the parasympathetic nervous system, aiding relaxation and revitalization. According to the study's lead researcher, Dr Qing Li, these benefits could be achieved by taking a simple walk through a natural park. In addition, findings from a systematic review undertaken by the Harvard Medical School in 2013 recommended brisk walking for 30-60 minutes a day. Brisk walking stimulates natural endorphins which could lower levels of depression, lift mood, boost self-esteem, and positively influence other health factors. Furthermore, researchers at the University of Bristol suggest that simple outdoor gardening could reduce levels of depression and negative mood.

In New Zealand (and internationally) using the great outdoors as a restorative environment to run specifically designed, challenging outdoor education and activity based programmes in natural environments for individuals, especially for, but not limited to, young adults and at risk youth with substance abuse and mental health issues has proven highly effective.

Participants who took part in, completed, and continued to take part in outdoor education and NBAT programmes experienced lower rates of substance relapse and/or abuse, mood depressions, and anxieties (Outward Bound NZ, 2015; Lynch, 2010; McKay, Donaldson, Schroder, 2009; Jansen & Pawson, 2009; Dickson, et al., 2008; Mossman, 2005; Jansen, 2004; Martin & Legg, 2002; Eggleston, 1998).

Social Health

Opportunities for social connection while pursuing some form of outdoor recreational activity is important for the social health, support, and values of individuals, families, communities (Ministry of Health, 2014; Brabyn & Sutton, 2013; Blaschke, 2013; Boyes, 2012; Dalziel, 2011; Reis, Thompson, Lovelock, & Boyes, 2010). Sport New Zealand (2014) found that 52.9% of all respondents cited social reasons for participating in sport and recreation participation, with the males reporting 57.1%.

Similarly, in the 40-64 year age group, a significant level of positive benefit was associated with participation in a specific outdoor activity along with participation in social and family occasions. The more social contacts this group reported, the greater their perception of overall wellbeing. Similar findings were reported for the 65-84 year age group, although there appeared to be more emphasis on family connection and entertainment.

Anti-social behaviours decrease and personal, inter-personal, familial, and social relationships seem to improve for individuals (especially troubled young adults and at-risk youth) who took part in, and completed, specifically designed and structured outdoor educational and NBAT programmes (Outward Bound NZ, 2015; Lynch, 2010; McKay, Donaldson, Schroder, 2009;

Jansen & Pawson, 2009; Dickson, et al., 2008; Jansen, 2004; Martin & Legg, 2002; Eggleston, 1998).

Spiritual Health

Parks in natural settings provide a place for people to reflect and find personal inspiration (Brabyn & Sutton, 2013). Some research also indicates that time in the wilderness and connection with nature provided troubled youth and young adults with the place and space to experience their 'spiritual essence' or 'life force' thereby enabling a deeper connection to themselves and to the world outside of themselves (McKay, Donaldson, Schroder, 2009; Jansen & Pawson, 2009; Eggleston, 1998).

Personal Development/Self-actualisation

Connection with nature in outdoor settings can positively impact on personal growth and development (Brabyn & Sutton, 2013). Furthermore Jansen and Pawson, 2009, Jansen, 2004, and Eggleston, 1998, suggest that this type of connection with nature through participation of outdoors activities can facilitate the growth of cultural development and identity in some individuals.

Research indicates that anti-social behaviours, and personal, interpersonal, familial, and social relationships seem to improve for most individuals (especially troubled young adults and at-risk youth) who took part in, and completed, specifically designed and structured outdoor educational and NBAT programmes (Outward Bound NZ, 2015; Lynch, 2010; McKay, Donaldson, Schroder, 2009; Jansen & Pawson, 2009; Dickson, et al., 2008; Jansen, 2004; Martin & Legg, 2002; Eggleston, 1998).

In the last few decades, the pursuit of leisure and outdoor recreational activities has been recognized as part of human development and allows for growth and self-expression. Furthermore when undertaken from an early age (early life exposure) these recreational activities can set in motion a life-long appreciation for participation in outdoor recreation, the environment, and self-identity, resulting in community integration and leadership roles during the senior years. This may help to promote good levels of holistic health and wellbeing for senior citizens in later years (see appendix C for an overview of the New Zealand literature reviewed here).

Summary

An innate belief in the health and wellbeing benefits that nature can offer people is an ancient paradigm, but it is only relatively recently that the relation between outdoor physical recreation and health has become the focus of empirical research and vigorous scientific investigation (Blaschke, 2013).

The international research literature on the health and wellbeing benefits of exposure and connection to nature through outdoor adventure and recreational activities is extensive. In contrast, the New Zealand based research is comparatively limited. This seems surprising, given the cultural value New Zealanders place on outdoor recreation, and the survey evidence that indicates the popularity of outdoor recreation for New Zealanders (Sport New Zealand, 2015).

A number of problems limit the validity and robustness of the international and New Zealand research on the health benefits of outdoor physical recreation. These problems included but were not limited to difficulties in

replicating findings and results across studies; problems in tightly determining the health effects of outdoor recreation across differing physical environments; the lack of long term studies that follow up the health effects of participation in outdoor physical recreation for specific demographic groups. The rigour of some studies was also affected by small research samples, problematic sampling methods, lack of control groups, and associated difficulties with generalisation.

In terms of under-examined areas, little research was found that examined the experiences of men using nature as a therapeutic landscape in conjunction with various outdoor recreational activities. In fact, there was minimal research into the benefits of outdoor recreational activities for the health and wellbeing of adolescent, adult or elderly males; males from lower socio-economic group; or people with diagnosed or specific physical and/or mental health disorders. These absences were particularly apparent in the New Zealand research literature.

This study responds to the above noted gap in the literature. As noted in the introduction, it examines men's experiences of outdoor recreation in New Zealand, specifically within the fishing and tramping demographic of the Canterbury region.

CHAPTER THREE: METHODOLOGY

Introduction

In this chapter I describe the methodology chosen to undertake this study. As noted earlier, the purpose of the study was to investigate men's experiences of outdoor recreation in New Zealand. The research question was "what are the experiences of men who enjoy fishing and/or tramping in the great outdoors of New Zealand?". The research objective was to gain rich and detailed answers, information, and understanding from the personal experiences of men who regularly participate in two of New Zealand's most popular outdoor recreational pastimes, fishing and tramping.

Methodological approach

This research project adopted a qualitative descriptive approach. I chose this approach because I felt it would be the most appropriate way to address my research question. Within the field of qualitative research, phenomenological, ethnographical, grounded theory or narrative studies are founded on methodological frameworks that emerge from particular disciplinary traditions (Lowenberg, 1993; Sandelowski, 2000). In contrast, qualitative descriptive studies, arguably, are the least theoretical or philosophical of all the qualitative study approaches and are inclined to draw from the basic principles of naturalistic inquiry. According to Gubrium and Holstein (1997), naturalistic inquiry is one of four main traditional qualitative research approaches, which they describe as:

1. Naturalism (naturalistic inquiry): the focus here is on objective reality, seeking to understand social reality as it really is, observing,

describing, and reporting 'things as they really are', providing rich and detailed descriptions of peoples interactions in natural environments.

2. Ethnomethodology: the focus is on understanding how social order and interaction is created in everyday life, and how social life becomes social reality. This tradition has a naturalistic orientation.
3. Emotionalism: focus is on accessing 'inner' meaning, emotions, and reality of 'the self'. Emotionalism seeks to uncover the deeper 'inner reality' of people.
4. Postmodernism: postmodernists question and problematize any conception that it may be possible to determine a definitive version of social reality.

(Bryman, 2008; Gubrium and Holstein, 1997)

Given the nature of my research question, and my own background in outdoor conservation education, adventure and eco-tourism, and AOD/mental health counselling, a naturalistic approach allowed me the opportunity to talk and interact with 'anglers and trampers' face to face. It supported my aim of gaining insight into the role fishing and tramping played in their lives, and what these activities meant to them at the level of personal experience.

Bryman (2008) states that "naturalism seeks to understand social reality in its own terms, 'as it really is', and that it provides rich descriptions of people and interaction in natural settings" (p.367). Sandelowski (2000) describes naturalistic qualitative descriptive study as not having any prior commitment to any one particular philosophical or theoretical opinion of the target phenomenon, with no pre-selection or manipulation of variables.

The qualitative descriptive researcher uses techniques that facilitate the collection of rich, detailed, answers to questions of significance to the

particular study. These answers should be ideally be a detailed account of a participant's 'thoughts, feelings, attitudes or beliefs', in a manner that is minimally affected by the researcher's theoretical perspective, or by intentional/unintentional adjustment on behalf of the participant (Bryman, 2008). Although qualitative descriptive studies differ from phenomenological, grounded theory, ethnographic, and narrative studies, they may still have characteristics and certain qualities from these approaches (Bryman, 2008; Sandelowski, 2000).

Trustworthiness

Some writers and researchers have viewed qualitative descriptive research as a 'weaker' or 'lower level' methodological approach (Bryman, 2008; Sandelowski, 2000). Indeed concerns about quality and rigour in qualitative research has been a point of debate and unease for a long time. Bryman (2008) suggests two main reasons may be responsible for these concerns; firstly, qualitative research incorporates a wide range of research methods and methodologies that vary considerably from each other, which may make their systematic appraisal more challenging; and secondly, the connection between theory and research is to a certain extent more equivocal than in quantitative research.

In terms of assessing the quality and rigour of qualitative research, Bryman (2008) refers to the notion of 'trustworthiness' (Guba, 1985; Guba and Lincoln, 1994). Trustworthiness is made up of four criteria, with each criterion paralleling an equivalent criterion in quantitative research. So *credibility* parallels internal validity; *transferability* parallels external validity; *dependability* parallels reliability; and *confirmability* parallels objectivity (Guba, 1985; Guba and Lincoln, 1994). Building on this approach, I employed

the criteria of credibility, transferability, and confirmability to establish the trustworthiness of my research. These criteria can be addressed in the following ways:

- *Credibility*: can be established by the researcher making available to each study participant an account of what they said in response to questions asked during the interview. A draft of the study's findings can also be made available to each participant. This process is often referred to as 'respondent validation' and seeks to confirm that the findings are an accurate representation of what was expressed and that the participants' experiences and perceptions have been correctly understood and documented.
- *Transferability*: because qualitative researchers seek to gather rich, deep, and detailed information, a 'thick description' is produced in their findings. Guba and Lincoln (1994) argue that this thick description offers a form of 'database' that makes possible the transferability of the research findings to other environments and settings.
- *Dependability*: involves the stringent and meticulous keeping of accessible records pertaining to all phases of the research project for the purposes of 'auditing'. This auditing process, according to Guba and Lincoln (1994), can help to confirm to what degree proper procedure (both during and at the end of the project) has or is being followed. However, Bryman (2008) states that 'auditing' has not become a popular method to establish qualitative research dependability.
- *Confirmability*: acknowledges that while complete objectivity is almost impossible on the part of the researcher, through correct supervision and auditing procedures, both during and at the end of the research project, it can be established that the researcher has acted in good faith. This means that the researcher has not obviously allowed personal beliefs and/or theoretical leanings to influence his/hers process of conducting the research and producing the study's findings.

Summary

I chose to undertake a naturalistic inquiry for this research, using a qualitative descriptive methodology, due to the nature of the research question and my personal beliefs and experiences. Qualitative descriptive study designs are characteristically heterogeneous by nature, but nevertheless require carefully considered and reasonable combinations of data collection, sampling, analysis, and representational methods and techniques. Qualitative description is the method of choice when deep, rich, and nuanced description of social phenomena is the desired outcome (Bryman, 2008; Sandelowski, 2000). The methods I have chosen are appropriate to the methodology of this study. In the next chapter I will demonstrate how my methods of choice were applied, and how they are consistent with my chosen methodological approach.

CHAPTER FOUR: METHODS

Ethical Considerations

I was granted ethical approval for my study by the University of Canterbury Human Ethics Committee on August 8, 2014 (see appendix D). Proper regard for ethical standards, cultural values, truthfulness, confidentiality, respect, and transparency was adhered to throughout the research and data collection process. Participants were provided with information relating to the details of the study and the informed consent process, and a consent form (see appendix F) was signed off before the interviews commenced. Individual interviews were conducted at a time and place that best suited the study participants, with the understanding that they could withdraw from the study at any time, or take a break (e.g. to drink a coffee, or have something to eat). Every effort was taken to make the interview environment and the participants as relaxed and comfortable as possible. Participants who indicated they would like to receive a copy of the study findings will receive a summary after submission of thesis. Some participants indicated they would like the entire study made available to them should a Masters degree be awarded. Furthermore, participants were informed that the interview material might be used for subsequent publications in peer-reviewed journals.

Participants were given my contact details, and the details of my study supervisors, in the event that any concerns emerged. It was explained that if participants did not wish to discuss their concerns with me in person, that they could raise them with my supervisors and/or the Chair of the University Human Ethics Committee.

Sampling Strategy

Bryman (2008) states that in purposive sampling “the researcher samples with certain research goals in mind. In purposive sampling, sites, like organizations, and people within sites are selected because of their relevance to understanding a social phenomenon.” (p. 415). With qualitative research, most sampling will involve some type of purposive sampling.

Snowball sampling is a form of purposive sampling and is arguably the most common sampling method used in selecting respondents for semi-structured interviews (World Health Organisation, 2014). Snowball sampling is a non-probability sampling approach that involves the researcher making first contact with a person or small group of people who are central to the research being undertaken, and these individuals then provide connections to other suitable participants. Because non-probability samples have not been selected using a random sampling method, some participants are more likely to be selected than others (Bryman, 2008; World Health Organisation, 2014).

In this research, the snowball sampling approach began with me contacting the presidents of six tramping and six fishing clubs in the Canterbury region, either by email or telephone. I asked if I could meet with them, in order to provide information on my proposed study, and also so as to seek permission to conduct my research with consenting members of their clubs. Only two club presidents had the time to meet with me in person, however all twelve presidents agreed to circulate my ‘information flier’ (see appendix G) and contact details in their monthly newsletters. Interested club members would then contact me to discuss and hopefully organize a time and place to take part in the research (i.e. to be interviewed). Three club presidents also invited me to monthly club meetings and gave me permission for me to distribute information sheets (appendix E) and/or talk with club members at

these meetings. I was able to attend two of the three club meetings in Christchurch, and significant interest was shown by those present, with most of my information sheets taken by club members. Club members who were interested would then contact me via the contact details furnished on the information sheet.

Participants and Recruitment Process

Initially, I had anticipated interviewing 6-8 males aged 18 years or older from consenting angling/fishing clubs and 6-8 males aged 18 years or older from consenting tramping clubs. However, participant recruitment proved to be more difficult than expected. Overall, there were 20 respondents, which was highly encouraging. However setting up interviews in and outside of Christchurch, at times, dates, and places that suited everyone became somewhat challenging, and even more so when respondents cancelled interview arrangements at the last moment and said they would come back to me with a new time and date, or did not present at all.

There were a range of reasons that potential participants did not, in the end, take part in the study. Three of the first five respondents who contacted me and indicated they would like to be part of this study withdrew after three or four weeks of repeated telephone messages. I was unfortunately unable to obtain time, date and place confirmation for interviews with them despite repeated efforts to do so. These three non-participating respondents were all members of tramping clubs. A further four respondents were excluded from the study after repeated failures to present for interviews at the time and place we had agreed on. One respondent was a member of a tramping club, the other three members of fishing clubs. In one instance, I drove to

Ashburton to meet with a respondent who did not present, while another respondent made repeated arrangements to meet with me at three different libraries located around Christchurch but failed to present each time. Of the 13 remaining respondents, three were excluded due to ongoing health concerns. The overall process of sample attrition is shown in figure 3 below.

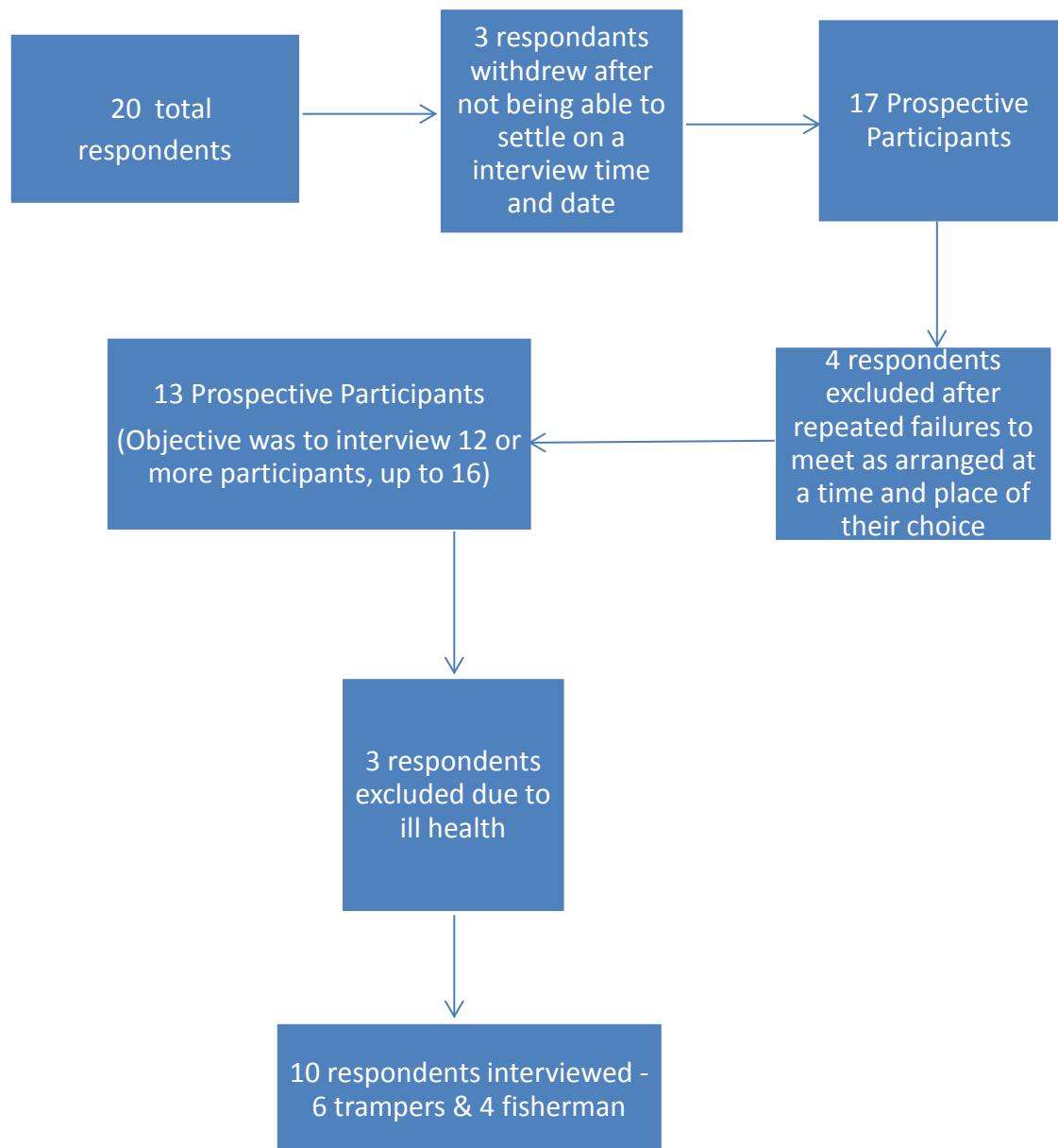


Figure 3. Participant Recruitment Process

The 10 respondents were given pseudonyms to maintain their anonymity, and to facilitate the coding process during the thematic analysis and discussion. Using these pseudonyms, the respondents had the following characteristics:

Trampers

1. Brad
 - Semi-retired 58-year-old sound engineer. Married with children.
2. Isaac
 - Retired 81-year-old university lecturer. Married with children.
3. Graeme
 - Semi-retired 65-year-old chartered accountant. Married with children.
4. Ralph
 - Retired 76-year-old teacher. Married with children, and has a double hip replacement.
5. Glenn
 - Retired 73-year-old GP. Married with children. Struggles with bad knees.
6. Chad
 - Ex-solicitor, 58 years old, who started a lucrative forest management business. Not married but has a live-in partner. Struggles with ongoing lower body complications as a result of rheumatic fever.

Anglers

1. Garth
 - Semi-retired 69-year-old sales consultant. Single with children. Struggles with arthritis.
2. George
 - Self-employed 60-year-old building contractor. Married with children. Primary caregiver for an adult brother with serious mental health and addiction issues.
3. Martin
 - University Head of Department, 55 years old, married with children.
4. Marty
 - Senior university lecturer, 47 years old, married with children.

Data Collection

Interviews were conducted at times and places agreed with the participating club, association, organisation, or individual, at a location either in Christchurch or rural Canterbury. A semi-structured interview format was followed using ten adaptable but pre-planned open-ended questions. Open-ended questions allow for the flow of the conversation to dictate the questions asked, the questions not asked, and when certain questions are asked. Open-ended questions are intended to encourage detailed and meaningful answers, drawing upon the study participant's knowledge, experience and feelings. Open ended questions characteristically begin with words like, 'why, where, when, who, what, and how' and tend to be less directive than closed-ended questions that elicit either a yes or no answer (Woods, 2011; Sandelowski, 2000). I felt this approach would provide deeper insight into how study participants viewed, and felt about the role that fishing and/or tramping played in their lives, in part because it enabled me to explore further particular answers given by a participant. This approach facilitated flexibility, flow, and ease in the interviews with participants.

The duration of the interviews ranged between 35 and 75 minutes. All interviews were electronically recorded and then transcribed by myself. I chose to transcribe the interviews myself and whilst this was a very time-consuming task, it offered great benefits in terms of bringing me closer to the data and encouraging me to begin early identification of key themes, sub-themes, and emerging themes. Observational techniques and field notes were also employed in conjunction with the interviews. I was involved, interactive and relaxed with the participants in the collection of these data with the intention being to gain an accurate understanding of their perceptions and experiences, as described by them. According to Heath

(1997, p. 1), 'The purpose of qualitative or naturalistic research varies according to the research paradigm, methods, and assumptions. Qualitative researchers generally attempt to describe and interpret some human phenomenon, often from the words of selected individuals'.

Data Analysis

According to both Bryman (2008) and Sandelowski (2000), as far as qualitative descriptive studies are concerned, qualitative content analysis is the analysis method of choice. Qualitative content analysis is a rigorous method of analysing data with the aim of accurately identifying the patterns, similarities, differences, and regularities that may exist within it. In terms of a specific approach to qualitative content analysis, I employed the framework approach to thematic analysis, which has been described as a 'matrix based method for ordering and synthesising data' (Ritchie, Spencer, & O'Conner, 2003, p. 219). Thematic analysis is a 'way of seeing' and coding qualitative information, according to the identification of the most prevalent and least prevalent themes, including emerging themes (Woods, 2011, Bryman, 2003). I identified key themes, sub-themes, and emerging themes within the interview narratives by closely examining participant's responses to individual questions and then grouping together questions and answers that indicated patterns and/or similarities or differences. Braun and Clarke (2006) suggest there are 6 phases to the process of thematic analysis:

1. Familiarising yourself with your data; reading and re-reading the data, transcribing, noting initial ideas.
2. Generating initial codes; collating data relevant to each code.
3. Searching for themes; collating codes into potential themes.

4. Reviewing themes, checking if themes work in relation to collated codes and entire data set.
5. Defining and naming themes; iteratively refining each theme to ensure its fidelity to the data; generating clear definitions and names for each theme.
6. Producing the report; final opportunity for complete analysis and scrutiny of first 5 phases before producing scholarly findings report of the thematic analysis.

I used Braun and Clarke's (2006) suggested process for thematic analysis in this research. To illustrate this process, consider the following narratives from interviews with two anglers (Garth and George) and two trampers (Ralph and Brad). Each of these interview excerpts were initially coded under the key theme heading "Early Life Influences":

(Interviewer) When did you first realize you enjoyed fishing, and why?

I started fishing from 11 years of age all the time, whenever I could you know, with my father, who started fishing initially for a while, and with some family friends. The whole family began fishing and we would go together, and I would also go alone and with friends too (Garth)

(Interviewer) Where did you catch your first fish (who were you with/how did it feel)?

Oh, hell, it goes back to when I was a child, probably. Difficult to say, it was either fishing in the creeks in Auckland or my father taking me fishing off the wharfs in the harbour. One or the other ... I can't remember which one came first. I guess, I enjoyed catching fish, it was

as simple as that really... I can't remember now ... probably he (Dad) took me fishing first, probably off a wharf or something like that (George).

(Interviewer) When did you first realize you enjoyed tramping?

I think I've probably tramped as long as I can remember. My father just walked – he never put a pack on his back – but he walked and, uh, we were living in Hamilton and he would think nothing of after tea at night walking to Cambridge which was 11 miles and back again, before he went to bed. My mother died when I was 4 years old, so I guess it's just to be with your father as much as anything. If he went away walking, you walked with him (Ralph).

(Interviewer) Where did you complete your first tramp (who were you with/how did it feel)?

As a young boy Brad remembers constantly being encouraged by his father and family to... “bugger off and go camping...the thing is I grew up with it all as a kid, we had a farm and you just sort of went out with a horse and camped by the pond or on the coast, kayaking at age 13 with a bunch of friends”.

Although I initially coded these narratives under the key theme “Early Life Influences”, after further analysis of my data and consideration of the initial and potential themes, I decided that a key theme of ‘Early life influences that inspire passion for the outdoors and outdoor activities’ would be more appropriate. I then created the sub-theme ‘Role of the father, family and close friends’ to better represent the narratives of these four participants. I

undertook a similar process of identifying and refining themes for all of the interviews, and I then coded particular sections of the interview narratives to these themes.

Summary

In chapter one, I provided an introduction and background to my research. In chapter two, I reviewed both international and New Zealand based literature relevant to my study. In chapters three and four, I have detailed my research methodology, methods, ethical implications, as well as considering issues pertaining to the quality, rigour, and trustworthiness of the research. In the following chapter, I present and discuss my research findings in narrative form.

CHAPTER FIVE: FINDINGS AND DISCUSSION

In this chapter, I present the key findings that emerged from the participant interviews and discuss these in relation to the reviewed literature, using a narrative approach. I identified five key themes and a number of sub-themes arising from the data. Ten men between the ages of 45 and 84 were interviewed, comprising six trampers and four anglers.¹ All ten participants reside in the city of Christchurch, New Zealand. The trampers were all active members of various Canterbury climbing/tramping clubs. Two of the four anglers were members of the same Christchurch based fishing club, while the other two fly-fished in a private capacity.

The chapter has five main sections, each of which reflects a key theme that emerged from the interviews. The research question, as noted earlier, was “what are the experiences of men who enjoy fishing and/or tramping in the great outdoors of New Zealand?”. The five key themes covered here are health and wellbeing effects, early life influences on passion for the outdoors and outdoor activities, outdoor environment preferences, reasons for these preferred environments, and the factors that influenced a participant’s choice of environment for tramping/fishing activities.

Key Theme 1: Health and Wellbeing Effects

Participants were asked about the impact their outdoor recreational activities had on their health and wellbeing, taking into consideration the physical, mental, social, spiritual, and personal development/self-actualization domains. Personal development, a key theme in the literature, cuts across several of these domains, but was not confined to any one in particular.

¹ As noted in the previous chapter, the names used for participants in the narrative text are all pseudonyms.

Physical effects of tramping and fishing activities

When participants were asked about the physical effects of their tramping and fishing activities, the most common responses included maintaining good levels of physical fitness as well as overcoming injury and illness.

Participants also spoke about weight loss and the sense of wellbeing they experienced after a physically challenging tramp or backcountry-fishing trip.

Brad, for instance, liked the fact that his regular tramping regimen helped him to “keep the weight off from all the cooking” and Graeme “loved the physical feeling of sore and challenged muscles” after a long tramp. Ralph also spoke about the physical effects of tramping:

... I was really, really fit when I was younger and it was the fitness thing. Nothing could stop you... you just wanted to go on and on and never got tired ... it's still purely for fitness. If I didn't tramp, I think that I would just seize up. I just need the exercise. I'm exercising the whole body. I use walking poles now – I never used to – but you know your upper body is being worked all the time (Ralph).

The experiences of these three participants in terms of weight loss, fitness, and a sense of physical wellbeing echo the findings of other research that has identified similar physical health benefits for people who regularly undertake some form of physical outdoor activity in natural environments (Heart Foundation, 2015; Ministry of Health, 2015; Blaschke, 2013; Godbey, 2009).

For Isaac and Chad (both trampers) and Garth (angler), the physical aspects of their tramping and fishing activities helped them to effectively manage and overcome injury and illness, thereby affording them a better quality of life.

As Isaac explained:

I have had two hip replacements and when they started to pack up I thought what am I going to do, what am I going to do? But it hasn't held me back... I'm still tramping and I can always remember my brother saying when I came to Christchurch, "if you don't join a tramping club you'll die". I don't know what I'd do if I couldn't tramp. It's part of my weekly living... it's not just tramping, I also do a lot of biking now so I'm filling in the week with a tramp and biking. I was up on Banks Peninsula on the weekend tramping and biking. I had to stop a few times to get the old lungs working but it was great fun (Isaac).

Similarly, Chad described how tramping had helped to keep him fit and overcome physical injury:

I try to make sure I keep fit. Over the years I've put my back out (every) now and then... the lower lumbar you know... pain down my leg. I contemplated having an operation but didn't need it in the end. I found if I did a lot more walking it's good for the back. In July I had a bit of a scare... I really put my back out. Now I'm probably a lot fitter than I have been for a few years.

Garth was happy that the exercise he undertook whilst walking for miles along the banks of backcountry rivers 'hunting trout' helped to keep a few of his physical ailments in check:

I like to do rivers and back country stuff and it's quite demanding physically. I've done two rivers recently and I'm very pleased with the way I'm moving because you know I've got arthritis in my fingers and I've had a rheumatic disease that's still hanging around the neck area, but the legs are good. Yes, the lungs are pretty good [too]. I do mountain biking and I'm in a tramping club. I joined them to keep my fitness levels up so that I could fish the rivers...I've got to look after me health wise. I really don't want my health to crap out...it's so important, my health is very important.

These experiences echo studies which show how outdoor physical recreation is associated with improvement in function and mobility (Boyes, 2012; Waldegrave & Koopman-Boyden, 2010), strengthening of muscle, joints, and bone (Ministry of Health, 2014; Godbey, 2009), reduction of arthritic and spinal pain (Godbey, 2009; Bell, 2007), and increased levels of energy and physical prowess (Bowler et al, 2010; Brymer, 2005).

The physical nature of Martin's trout fishing activities was an important factor in the maintenance of his ongoing health and wellbeing. Martin talked with notable pride about the physicality of his favourite pastime:

I will take my mountain bike and go upstream first and drop the mountain bike off, and then drive back down and start fishing up to the bike. And when I get to the bike, then I bike back down to the car. Generally I go a distance that on the river bank is taking six to eight hours to walk, and on the bike its forty five minutes to bike back on the road... at the end of a day like that, I definitely feel like I've done some exercise. Ten to twelve kilometres on a bike and then on the riverbed you've walked up one side and down the other, probably twice. Yes, about a twenty kilometres walk... that's fifteen or twenty kilometres walking up the riverbed... casting in and pulling out all day long. So it's a long day... everything I do requires a high level of fitness. I play tennis you know (to keep fit for fishing trips) and just a couple of hours yesterday and I'm still tired from it. If I wasn't fit enough, I couldn't walk around and up a riverbed or keep up with the other guy (fishing partner) who is thirty years old.² I am a little bit proud of that.

Like Martin, Marty pushed himself hard during the course of a fishing trip. The physical exercise was extremely important to Marty insofar as his personal health was concerned:

² Martin is fifty five

You know I like physical because I do need to get exercise and for me fishing is a main form of exercise at the moment. For me it's important health wise and I try to do trips around where it is going to be very physical. I don't want to go somewhere where I just stand in one spot. If we (with his fishing partner) go fishing and I've got the whole day, I'll pick somewhere where I know I can do quite a few kilometres walking and do a tramp at the same time getting in some good physical exercise. We both like adventure. We both like being out in rough places where it's hard to get to and we have to push hard to get there. We will walk for miles and miles and just keep on walking until we'd had enough (and then begin fishing).

Martin and Marty's descriptions of the important contribution that fishing made to their health and fitness are in keeping with the large body of research that demonstrates the positive effects of regular outdoor activity on physical health and fitness (Sport New Zealand, 2015; Ministry of Health, 2014; O'Brien et al., 2012; Booth, 2011; Reis et al., 2010; Thompson et al., 2010; Godbey, 2009; Townsend & Ebdon, 2006).

In contrast to the other participants, George spoke in more philosophical and measured terms about the health and wellbeing effects of his fishing activities:

I don't think fishing is the only thing that can provide those things.³ But in the act of going fishing you usually get some or all of those things...not always everything (but) sometimes you do get some of them. It's not because you're actually setting out to go fishing... you're not setting out to alter your consciousness on top of a mountain. You're not setting out to get yourself incredibly fit so that you can hike across the South Island. You know you are going fishing and those other things happen because of that... If you went fishing in Auckland and you fished out on a little boat 200 metres from shore and you never got out of the city, and you could still hear the traffic and you're in a boat with a line over the side, and you're not doing anything

³ Health and wellbeing effects

strenuous or skillful, it probably wouldn't be or there wouldn't be as much reward in that sort of sedentary type activity, in that type of environment.

For George then, the health effects were a consequence of his fishing, but not necessarily the goal. The environment in which the fishing took place was also perhaps as important, in terms of positive health effects, as the activity of fishing in and of itself. All participants placed great importance on the physical health benefits they experienced through their outdoor tramping and fishing activities. Their responses linked well with extant research, as referenced, and particularly studies detailing the effect outdoor physical recreation can have on wellbeing and the successful management of injury and illness (Sport New Zealand, 2015; Ministry of Health, 2014; O'Brien et al., 2012; Booth, 2011; Reis et al., 2010; Thompson et al., 2010; Godbey, 2009; Townsend & Ebdon, 2006).

The penchant for New Zealand men to enjoy regular recreation in outdoor environments can be seen in the findings of Sport New Zealand's (2015) nation-wide sport and recreation survey. The survey found that 82.4% of males in New Zealand had participated in some kind of recreational activity in a natural environment in the preceding 12 months, with more than 32% participating in their chosen activity 5-7 days per week. Furthermore, walking (46.8%) and fishing (29.2%) were the top two outdoor recreational activities for men across all age groups.

Psychological and mental effects

All the participants referred to the positive psychological/mental effects of their tramping or fishing activities. Reduction in stress/anxiety levels and an

improvement in mood and sense of wellbeing seemed to be the main two effects reported by both the trampers and the anglers.

For instance, Brad reflected on his tramping experiences for a moment or two before saying:

I often think, you know, I think where I've been and what I've done, and that I've had a good day. I don't sort of go down [in mood] or anything because I'm coming back [down the mountain], you know. I suppose it just makes you feel good.

Isaac also described how tramping made him feel on a mental level, explaining that: "you just feel connected with the whole of creation... you just feel good". Chad, also a tramper, provided a comparable but more detailed description of the mental effects of his favourite outdoor recreational activity:

Oh, [the] mental stuff's very important. Yes, I think after all, getting out there in the hills is very good for your mind and soul. But I've always thought that anyway... I always feel very happy up in the hills and you'd almost be walking along and you think I'll eat better when I get back home sort of thing you know. I'm appreciative of it in a sense that I think it's just so good for you... If you're a wee bit depressed or something, or grumpy or something, go for a walk in the hills. You'll come back feeling much better.

The participants' comments here are consistent with existing research that links walking and tramping in natural environments with improved mental wellbeing and optimism (Ministry of Health, 2014; Greffrath et al, 2011; Reis et al., 2010; Godbey, 2009).

Fishing had helped both Garth and George to manage some emotionally challenging and unpleasant times in their lives. For instance, Garth explained that:

It's [fishing rivers] got me through some bad times, you know. When things crack up with relationships and stuff like that, I've always fallen back on getting out [fishing], even when I haven't felt like it. You know, get out into the outdoors, and get up in the mountains... your problems are much smaller when you see them through the big picture.

At the time of being interviewed, George was experiencing painful family turmoil. He described the mental escape that fishing afforded him:

The other thing about fishing is of course that a lot of the pleasure of it is to get away from your problems and other life, you know. It's an escape... I definitely notice if I haven't been fishing for say, two weeks, it definitely has a psychologically negative effect on me.

In a similar vein, but for different reasons to Garth and George, reducing work-related stress and having minimal contact with other people whilst fishing were of paramount importance for Marty and Martin. Both men worked at a senior level in high pressure, socially intense environments. Marty talked about the pressures of a demanding work schedule combined with the responsibilities that come with married life and two young children, and how fishing helped him to cope with the stress:

Well it's a de-stress thing for me. So that's very important. And part of that is not fishing with anyone else... except with maybe my mate. I don't want to see other people. I want to be out there by myself. I don't want to see another person. As far as I'm concerned people... you know, no! Isolation's important to me from that [a de-stressing] point of view...

Martin explained that fishing was the only activity he did by himself, for himself, in his otherwise extremely demanding family and work-orientated existence. Fishing gave him space, quietness, and reward (pleasure in hunting and catching trout), all of which helped him to maintain a healthy balance between family, work, and play.

Given the enthusiasm, regularity, and degree of physical and mental challenge experienced while tramping and fishing, it is interesting to note that although I did not ask participants directly if they had experienced improved sleep patterns, two of the ten participants mentioned experiencing good or better sleep following their outdoor recreation. Existing research has convincingly shown that physical recreation in natural environments can improve levels of quality sleep, and that sleep is an important factor in people's overall health and wellbeing (Boyes, 2012; Espiner et al., 2011; Jansen & Pawson, 2011; Waldegrave & Koopman-Boyden, 2010; Godbey, 2009; Bell, 2007). Garth, an avid backcountry 'trout hunter' told me:

I don't sleep well here [at home]... I just can't seem to relax, like the night before [a fishing trip]. I guess it's excitement, it's just nervous tension, you know. But when I'm away, say we are camping and fishing or in a hut using that as a base, I sleep really well on a camp bed in a sleeping bag. I sleep better than I sleep in my own bed [at home].

In addition, Isaac, a regular alpine tramper, talked about feeling "nicely stiff and sore" after a good tramping trip and how this helped him to relax and fall asleep more easily:

I'll come in (after a tramp) and sit in front of the television and have a whisky or a beer. Then all of a sudden I wake up and realise (I've

fallen asleep)...that I've missed what I was going to watch on television...I suppose it's just a pleasant tiredness and I go to bed.

For the anglers, fishing helped them to cope with emotionally turbulent situations and to manage the harmful effects of stress. The experiences noted above resonate with numerous studies that report significant reductions in stress and anxiety as a result of regular participation in outdoor nature based recreational activities (e.g. Nozik, 2013; Gass et al., 2012; Obrien et al, 2012; Moon, 2014; Bowler, 2010; Townsend & Weerasuriya, 2010; Godbey, 2009).

Overall, reducing or de-escalating the stress/anxiety factors prevalent in their work and personal lives appeared to be the most sought after effect for trampers and anglers alike. Their outdoor pursuits generally seemed to induce feelings of wellbeing, contentment, relaxation, and pleasure, and reduce levels of stress and negative emotions such as anxiety and depression. For trampers, experiencing these positive emotions and feelings was not dependent upon being alone or experiencing solitude. Conversely, the anglers seemed to favour fishing alone or in relative solitude (e.g. with a close friend), in order to relax and reduce stress levels. Collectively, their trampers and anglers' experiences support numerous studies that demonstrate the positive mental health effects associated with outdoor recreational activities (e.g. Sport New Zealand, 2015; Ministry of Health, 2014; Boyes, 2012; Obrien et al, 2012; Greffrath et al., 2011; Reis et al., 2010; Townsend & Weerasuriya, 2010; Waldegrave & Koopman-Boyden, 2010; Godbey, 2009; Bell et al, 2007).

Social dimensions of outdoor tramping and fishing activity

Participants gave an interesting range of responses regarding the social aspects of their preferred outdoor activity. The trampers appeared to embrace the camaraderie of being with and around other like-minded people whilst walking and camping in nature. The experience of companionship and overcoming challenges created a sense of belonging and purpose, which in turn fostered feelings of achievement, satisfaction, and happiness. In contrast, the anglers seemed less interested in the social side of their activity, preferring to fish in solitude, but retaining the choice to fish with a partner or with fellow angling club members/friends. However, in spite of preferring aloneness, the anglers described experiencing similar feelings of achievement, satisfaction, and happiness.

Isaac, a trumper, explained how he felt “connected with the whole of creation” when he was tramping and just how important the “social aspect of tramping” was to his overall health. With a big smile he enthusiastically described his current tramping activities:

That’s why you go with a group, you get to know them, and you’re like a big family. You know, we get away for about three weeks a year [prolonged tramping trips], and we [go tramping] every Thursday. That’s sacrosanct. Nothing interferes with Thursday.

However, Isaac also gave details of how unhappy and disillusioned he had been with previous tramping club groups where he had not felt comfortable, accepted, or as if he belonged to ‘part of a family’:

I first went out with a group of 60 year olds [from a tramping club] but they had too many rules... and they were mostly born again Christians.

So I moved across to a much more freer club that has very little formality. We meet twice a year to discuss where we are going to go for the next 6 months, but we don't keep minutes or anything. I do belong to (another club)... I haven't been out with them for a while. They are a younger age group and although I can keep up with them, you don't have so much in common. Yeah youngsters tend to stick together. I mean I still feel young, I feel like I'm 25, but I don't think younger people treat you like that. They tend to congregate together, which is natural.

Graeme and Chad were enthusiastic members of different tramping clubs. They both thrived on the social opportunities that their respective clubs offered them. Graeme regularly went tramping with friends who were also fellow club members. He enjoyed the combined challenge, companionship, and sense of belonging he experienced when tramping and camping in nature with like-minded long term friends. Chad on the other hand explained that he was "running out of mates that want to do this anymore" and that he was grateful, for the sake of his mental and physical health, that his tramping club organised regular weekly day tramps as well as monthly overnights.

Ralph similarly emphasised the social contact available through his tramping excursions:

Yes, I like the company. I love the company. I don't think I've ever gone off on my own, no not that I can recall. It's always been with a group or with somebody.... it's very good the strong social connection. You're discussing you know, you might see a bird or something that's rare and the same with plant life, certain trees, and flowers. Bird calls in the morning and birdcalls at sunset. It's very therapeutic, it's all very happy and special.

The narrative descriptions given by most of the trampers in this study certainly seem to support extant research that connects group-based,

outdoor activities with positive health outcomes (Sport New Zealand, 2015; California Department of Parks and Recreation, 2015; Ministry of Health, 2014; Blaschke, 2013; Obrien, 2012; Boyes, 2012; Dalziel, 2011; Godbey, 2009; Townsend & Ebdon, 2006).

In contrast to the trampers, the anglers were less socially orientated in their fishing pursuits. Although each of the anglers liked to have the *option* to be sociable, most chose to fish either alone or sometimes with a fishing partner. Garth, for example, a senior committee member in his angling club, enjoyed ample opportunities to socialise through both fishing and non-fishing club events. He nevertheless stated that club socialising was not a priority for him, and that he mostly preferred fishing by himself. He went on to explain that he did not mind fishing on an occasional basis with friends or other people from the club, providing they were fit enough and possessed the right array of fly-fishing skills. However the company of others remained secondary to his passion for fly-fishing alone in back country areas:

I've got several fishing mates [who I've] been fishing with for many years. Mostly I like to fish with guys who can keep up with me... mostly younger than me... because I like to do rivers and back country stuff and it's quite demanding physically. There's only a couple of guys I can fish with in the back country. So because I want to fish those areas I go a lot by myself, which I really enjoy. I fish lakes with other friends who are not fit enough [to do rivers] or just don't have the skills.

George, like Garth, preferred fishing by himself too. However, he also stated that if he wanted to socialize, he could do so through his angling club's annual social programme. George explained that he was very selective in his choices around whom he might go fishing with, and that he preferred to avoid

his club's group fishing trips because fishing, not socialising, was his priority:

The majority of times I go fishing I go fishing by myself and generally I try to find a place where I can be by myself. It might not be remote but it's somewhere where I'm not going to find another angler within a few kilometres. If I go with somebody then it's usually with a few people that I know well and like fishing with. I guess if you go trout fishing New Zealand style, you tend to become a small time hiker, camper, you know bush man, mountain climber, and naturalist. You do have some social context as well depending on all sorts of things ... there is a lot of social activity available through the club (Angling Club).

Marty and Martin were both resolute in their preference to fish alone and to be as far away from other people as possible (with the occasional exception of perhaps a close fishing friend). For Marty, complete isolation from other people was imperative, while aloneness was a very important aspect for Martin (given the context of his very busy everyday life). Neither man belonged to an angling club:

And part of that is not fishing with anyone else ... except with maybe my mate. I don't want to see other people. I want to be out there by myself. I don't want to see another person. As far as I'm concerned people, you know, no! Isolation's important to me from that point of view (Marty).

It's one of the very few things that I do for myself, that's simply for me. If my friend Brad is out there, it's for us. But generally it's a very rewarding thing (fishing in solitude). I think that my family normally gets seventy five to eighty percent of my time... and then the benefits of all my working time (very long hours). It (fishing) is the only thing that I do where they're (family and work) are not specifically involved. Just not seeing other people is very important to me... and they (family) can see how much pleasure I get out of it (Martin).

Separately, I suggested to both Marty and Martin that although they had made it clear that their absolute preference was to be fishing alone and in solitude, fishing with a close friend could still be construed as a social occurrence of sorts. Both men agreed in principle to my suggestion, but pointed out that there was minimal interaction and conversation while they were actively fishing. The focus, they said, was almost entirely on finding and then catching fish, while enjoying the splendor and quietness of nature, rather than any type of meaningful social interaction.

In summary, social connection and shared experiences appeared to be the main focus and attraction for the trampers, whereas fishing alone and in solitude seemed to be the most important factor for the anglers. Interestingly, however, the anglers did like having the option to fish or socialize with close friends and/or fellow club members. Taking into consideration the ruggedness and harshness of New Zealand's alpine environments it would be unusual for a tramper to undertake a climbing and camping trip, alone, for two or three nights. Equally unusual would be an avid angler, trying to walking silently for miles up a back country river and/or stalking the shallows of a high country lake 'hunting trout', as part of a larger group of anglers. That said, there are undoubtedly people who enjoy tramping alone in isolated environments just as there are anglers who enjoy fishing as part of a larger group. However, the results of this study suggest that for men tramping is more of a social activity while fishing leans towards being more of a solitary pursuit.

There were no studies among the literature reviewed in this research that specifically substantiate these findings. However, Galloway (2012) found that the act of fishing in itself was the primary motivation for river anglers in New

Zealand; angling tended to be a relatively solitary and individualistic activity, and something which provided an 'escape' from the daily grind of life. Additionally, Galloway proposes that fishing "celebrates wilderness values and enjoyment of nature" (p. 267). Espiner et al., (2011) noted that 'feeling at one with nature' and 'being in natural environments' (p. 187) were the most common reasons reported by respondents in his study on New Zealand and Australian men's enthusiasm for fly-fishing, hunting and scuba diving. Furthermore, a nationwide statistical survey on recreational fishing activities in the USA found that fishing was the third most popular outdoor pursuit, with more than 45.7 million Americans participating in 2015. Men fishing by themselves accounted for 17.9% of this group, while men fishing with one other person made up 43.9% (The Statistics Portal, 2016).

Numerous studies have emphasised the strong correlation between good health and social participation in various outdoor recreational undertakings (California Department of Parks and Recreation, 2015; O'Brien et al, 2012; Annerstedt and Wahrborg, 2011; Townsend and Weerasuriya, 2010; Godbey, 2009). We know that strong social connections can promote good health when like-minded people take part in outdoor activities like horticulture (Annerstedt and Wahrborg, 2011), gardening (Townsend & Ebden, 2006), bird watching, bush walking, and tramping (O'Brien et al., 2012; Godbey, 2009), and community ecological/preservation projects in gardens, parks, bushlands, and wilderness environments (O'Brien et al., 2012; Townsend & Ebden, 2006). These environments are of vital importance in that they provide the space and place for people to exercise and socialise, two activities that may help with the management and prevention of depressive and anxiety disorders (Townsend and Weerasuriya, 2010; Godbey, 2009) .

Other researchers have proposed that participating in wilderness adventure activities with friends, family, and other people is an important factor in the promotion and maintenance of healthy social connection. Studies of white water rafting (Fluker & Turner, 2000), challenging outdoor personal development/team building programmes (Outward Bound, 2014), extreme sports such as BASE-jumping, big wave surfing, free climbing, and wild water kayaking (Brymer, 2005), and extended tramping/mountaineering trips (Nozik, 2013), all supported the development of mutually beneficial and personally satisfying relationships. In turn, these relationships then tended to feelings of support, compassion, understanding, and a sense of belonging and purpose. These feelings all contributed positively to a person's overall sense of wellbeing and contentment.

Self-actualization, personal development, and spirituality

Participants were asked about what spiritual benefits (if any) they believed their tramping or fishing activities offered them. In response, the men typically spoke in terms of self-actualisation and processes of contemplation, self-connection, and self-understanding, rather than a belief in some form of supernatural entity or spiritual phenomenon. The collective responses from the two cohorts seem to align with Maslow's (1970) notion of self-actualization as a lifelong process and as part of an inherent human drive for development. The participants' views fit less well with research of Rowe (2015), who suggests that an individual's health and wellbeing can be positively influenced by higher levels of spiritual belief and/or understanding involving a personal 'God' or 'mystical being'. However, as previously noted, spiritual health is an intensely subjective topic. It is also important to note that personal development can include aspects of the physical,

psychological/mental, social, and self-actualization/spirituality domains, without being confined to any one domain in particular.

Some of the men's comments regarding the spiritual aspects of their tramping and fishing activities highlighted the contentious and subjective nature of spirituality as a concept (Heintzman, 2013, 2012). For example, Ralph was blunt and almost indignant with his reaction to this interview question, explaining, "it's certainly not religious". Martin's response came across as a little deflective, although perhaps more contemplative: "it's hard to say if it's (spiritual)... I don't really know what spiritual really means". In contrast, Chad hesitated uneasily as he contemplated the term 'spiritual'. As he explained:

... there's definitely something. I mean I'm an atheist but I feel I sort of recognise myself as an animal you know. And being out there (tramping in nature) with plants, particularly plants, because we are dependent on plants and animals aren't we, and other animals, insects and birds. I love animals and I do feel a connection to all of those... also it's just nice.

Chad's spirituality, as explained here, seemed to be primarily about a felt sense of connection with other forms of life (plants and animals), and a sense of his own animal nature, as a creature within the landscape.

Some participants recounted quite profound experiences during their time in the outdoors. Isaac and Marty, for example, spoke of experiences of deep inner contemplation and awareness, and their comments support the suggestion that connection with nature through outdoor activities may provide some people with a spiritual and/or personal development experience, as well as opportunities for deep inner reflection, self-

connection, and self-awareness (Outward Bound USA, 2014; Nozik, 2013; Greffrath et al, 2012; Dickson, et al., 2008; Brymer, 2005; Martin & Legg, 2002). Isaac, for example, elaborated on the time he became lost in the wilderness whilst tramping on Stewart Island:

I don't know, I'm not a religious person... but you just feel connected with the whole of creation... one of the greatest experiences of my life is when I was at Stewart island and got myself lost and had three days out on my own. It taught you a lot about yourself. You have to consciously calm yourself because you are in danger of losing it, of panicking, and I found the only thing (to do) was to sit down and calm yourself down and slow your breathing down, and think about it.

For Marty, fishing in remote locations invoked deep familial nostalgia and self-reflection opportunities:

... at certain places ... you get that connection, not everywhere you know, some places where you've got memories.... it's where you've got memories and you've spent time there or maybe it was years ago and you spent a lot of time there. Yes, you have a very strong bond you know. Used to go fishing with Dad, fishing with brother, and my Mum used to come sometimes as well. As a family unit we're very tight on those holidays and you know that is the memory that you get you know. When you smell that smell... when I'm up there in the 'Tassy' (Tasmanian) highlands, all I want to do is I want to take my father and my brother with me but often I don't get a chance to do that. But when I'm up there doing it on my own... it's the feeling that I get. It's a bloody good feeling. And for me I suppose that's about as spiritual as fishing gets for me. It's got nothing to do really with the fish itself. ... it's more about time and place. I've been there, and the memories are coming back.

In New Zealand, research suggests that access to natural environments provides opportunities for people to self-reflect and find personal inspiration and encouragement (Brabyn & Sutton, 2013). Time spent connecting with

nature in a wilderness setting may provide distressed people with the space to experience their 'spiritual essence' or 'life force' and in so doing, enable a deeper connection to themselves and to the world outside of themselves (McKay, Donaldson, Schroder, 2009; Jansen & Pawson, 2009; Eggleston, 1998). Certainly, some people might perceive these experiences to be some form of 'spiritual awakening' contributing to their personal growth and development. However, others might well determine these experiences to be a process of important inner growth, understanding, and personal development with no spiritual associations whatsoever.

Challenge and personal satisfaction

The participants expressed immense pride and achievement in working with and overcoming the elements and rough terrain, all while achieving their personal goals. For the trampers, getting to the top or as high as possible in the environment in which they were tramping, and setting up overnight camp was a major reward and provided feelings of self-confidence, joy, and deep personal satisfaction. For the anglers, overcoming the challenge of the environment and then using skills and experience to 'outsmart' fish while 'trout hunting' was immensely satisfying and rewarding, and resulted in feelings of contentment and accomplishment.

Both the trampers and anglers in this study provided good examples of the personal satisfaction they experienced when overcoming the challenges associated with their chosen outdoor activity. Brad, for example, was notably proud and passionate as he described a few of his more challenging tramping experiences:

I don't know, it's just I find it exciting from the point of view that you are always seeing something new. That's what I like. I like new experiences, and it's a real good way of getting them and all the beneficial side effects. You know you slog up the hill, you wonder why the hell you are doing it and you get to the top and take it all in and it just disappears [the hard slog]. It's just having a look and going, I don't know, what a great work of art, it's just that's New Zealand ... it's a different part of the world that you wouldn't see unless you were there. Something new you know. I've never seen it before and even if you went back up the light would be different, something would be different...it just makes you feel good.

For Garth, overcoming the challenge of the environment and utilizing his skills, experience, and physical fitness to successfully fly-fish a back country river gave him an immense sense of achievement, confidence, and self-belief:

There's more concentration, more skill needed to fish a [back country] river. There's a lot of skills needed to fish a river effectively, especially with a fly rod and casting line control, mending [flies and line], reading the water, and picking out the places that fish are going to be... it's more challenging. Lake fishing can be boring... I like to be hunting and active and moving. I like to do rivers and back country stuff and it's quite demanding physically.

Likewise, George described increased feelings of satisfaction and personal fulfilment after using his skills and experience to meet the challenges that his fishing activities presented him with. George described fishing as an 'inherent surviving type behavior'. He believed this is why people felt good and gratified when they caught fish. He explained that utilising his fishing skills in the pursuit of his favorite outdoor activity 'satisfied' this inherent primal behavior and promoted feelings of personal wellbeing:

I think it's almost instinctive and I think because it satisfies the instinct you get pleasure from it... you get satisfaction... if I've had a good day, I'll feel quite blissful, quite satisfied, slightly euphoric. You know there's a confirmation that my skills are intact and there's also that association that I have with other (positive fishing) experiences.

The challenge of being actively involved in fresh water environmental advocacy groups through positions in their respective angling clubs created a sense of accomplishment and purpose for both Garth and George. Both men were extremely passionate and knowledgeable in regards to fresh water fish conservation and preservation, and vocally passionate about the damage and pollution impact to our rivers, river bed environments, fauna and flora as a result of intensive farming, unrestricted rural development, and four wheel drive safari operators. Both men described experiencing moments and periods of achievement, progress, and intense personal satisfaction as a result of their advocacy and lobbying efforts. According to the Department of Conservation (2014), a strong connection has developed over time between New Zealanders who enjoy the experience of being in the outdoors and their desire to protect these environments. The many different outdoor based recreational clubs that have evolved in New Zealand over past decades (e.g. fishing, tramping, hunting, biking, running, camping, skiing) have helped to develop recreational opportunities across the country, but their members have also often made significant contributions to the conservation, preservation, and management of natural environments (Department of Conservation, 2014).

The two oldest participants in this study, who were both avid trampers, placed great emphasis on camaraderie and having the ability to achieve and overcome in spite of their age and physical limitations. Seventy six year old Ralph's enthusiasm for tramping with friends and obvious pride in his

physical prowess after two hip replacements was very evident in his body language and the way he spoke. He clarified that it was very important for him to be as 'independent' as possible – doing as much as he could for himself, by himself – while tramping and interacting with fellow club members:

I enjoy being totally independent and cooking for myself and carrying my own food [whilst tramping with friends]. Some do communal cooking and share with somebody else but I prefer to do my own thing and be totally independent. I think I've put a bit of thought into it, preparing it you know, when I'm putting it in the pack I think well I'm going to have this one night and this the next night ... I've pre-planned it all. I love it, I love it ... I get all psyched up you know the day before and get all my food ready and get the pack out and sleeping bag and yes, I just love that sort of stuff. I love overnighting in a hut somewhere and making for a hut and camping.

For Isaac, at age eighty one the oldest of all participants, the thrill and challenge of climbing up steep alpine mountainsides and along narrow walking ledges and bluffs created strong feelings of achievement and satisfaction and had become an integral part of his tramping and life experience. He also recounted, with visible emotion and pride, a potentially catastrophic situation where he had prevented a friend's son from falling to his death while they were edging along a narrow cliffside ledge:

I love getting way up in the snow... I really like getting up high, I just love getting up and appreciating the view... it becomes addictive. You know when I first started [tramping] I was terrified of heights but it doesn't worry me now. I notice sometimes when people come out with me now, they hate very steep slopes or getting out and walking along bluffs...but I tell them they will get used to it. One time I dug my hand into... I grabbed hold of a boy's waist as he was about to go over the edge... I said I had to stop for a drink of water [the boy asked why].

I've got to have a drink because fear makes you thirsty. His father did not realize how close it was.

These findings add to the numerous studies that show outdoor recreational activity in natural environments can improve levels of wellbeing, enhance feelings of satisfaction, and instil a greater sense of purpose and connectedness (Nozik, 2013; O'Brien et al, 2012; Greffrath et al, 2011; Townsend & Weerasuriya, 2010; Godbey, 2009; Bell et al, 2007; Townsend & Ebden, 2006; Brymer, 2005, Fluker & Turner, 2000); as well as increasing feelings of positivity, motivation, self-confidence, purpose, and happiness (Nozik, 2013; Obrien, 2012; Bell et al, 2007; Townsend & Ebden, 2006).

Personal satisfaction and a significant sense of achievement in overcoming challenge and adversity in natural environments was clearly evident throughout the responses of all participants. Compelling research evidence supports these findings (Brabyn & Sutton, 2013; Nozik, 2013; Dickson, et al. 2008; Brymer, 2005; Martin and Legg, 2002; Fluker and Turner, 2000). Furthermore, it is interesting to note that overcoming challenge and adversity is the mainstay of the prestigious International Outward Bound Outdoor Adventure Programs that cater for more than 250,000 participants globally each year (Outward Bound International, 2015). Outward Bound use the challenge of improving, overcoming, or 'bettering oneself' through the successful navigation of obstacles and difficulties in natural environments, in part, to bring about improved levels of self-confidence, self-reliance, and self-belief through an experience of achievement under difficult circumstances. Similarly, numerous research studies confirm that exploring and experiencing the uniqueness of nature with others, despite the challenges it may present, creates an array of interconnected physiological and psychological benefits (Nozik, 2013; Greffrath et al., 2012, 2011;

Townsend & Weerasuriya, 2010; Dickson, et al. 2008; Brymer, 2005; Fluker and Turner, 2000).

Key Theme 2: Early life influences that inspire passion for the outdoors and outdoor activities

Participants were asked when they had first come to the realisation that they enjoyed tramping/fishing, and who were they with at the time.

Overwhelmingly, their responses emphasized the significance of significant others (e.g. fathers, family, friends) in early life for the development of their interest in and appreciation of the great outdoors and outdoor recreation.

School and youth group outdoor programmes also played an important role in creating positive and lasting impressions for a few participants. The trampers and anglers believed their early exposure to outdoor environments and outdoor activities provided them with opportunities for independence and self-reliability, and that these in turn had helped them to create a set of life skills and a strong sense of self (which had served them well throughout their lives).

Role of the father, family, and close friends

Most participants spoke of childhood memories of encouragement and inspiration from their fathers and families regarding outdoor recreation. Brad, for example, warmly remembered being encouraged by his father and family to get out into the outdoors:

... my father was always telling us to bugger off and go camping. The thing is I grew up with it all [exposure to outdoor environments and activity] as a kid. We had a farm and you just sort of went out with a

horse and camped by the pond or on the coast... exploring and kayaking at age 13 with a bunch of friends”.

Eighty one year old Isaac, who is still actively tramping with fellow tramping club members, recalled similar memories:

I think I've probably tramped as long as I can remember, my father just walked. He never put a pack on his back but he walked. We were living in Hamilton and he would think nothing of, after tea at night, walking to Cambridge, which was 11 miles and back again before he went to bed. My mother died when I was 4 years, so I guess it's just to be with your father as much as possible. If he went away walking you walked with him (Isaac).

For Chad, close relatives instilled in him an appreciation for the outdoors and outdoor activities in his early childhood:

I had cousins who had farms in the hills, I remember going up there, and camping, and maybe a little bit of hunting and there was sometimes mustering. And climbing up hills and having a look at the view. So I think it was back then as a pre-teen and teenager that first impressions were made, and then probably, you know, late teens.

Glen explained that his appreciation for nature and outdoor recreation started with family camping and fishing trips when he was growing up:

When I was growing up, a lot of the time we used to go camping in the backcountry of North Loburn with the whole family. We would also go up and fish in the Clutha River and we'd go walking to Bens Spur or go walking in Arthurs Pass. We would also take trips to the Hawarden River in the Hurunui district and I can remember we explored further and further up the river as we got older.

In a similar vein, being introduced to the allure and mystique of fishing at a young age by their fathers and family friends held a special place in the memories described by the anglers. For example, Garth fondly reminisced back to his childhood:

I was always drawn to water. And then I got into like the real fishing when we [with his father] went to a local park that had a big artificial lake. Fishermen there had keep-nets holding the fish that they had caught. I was walking with my parents and Dad asked a fisherman if he had caught any fish and he said 'would you like to see them?' and he lifted up the net and I thought 'oh wow'. And for my birthday, I got my first proper fishing rod, and I never looked back. I started fishing from 11 years of age all the time, whenever I could, you know, with my father and with some family friends...and the whole family began fishing. I would also go alone and with close friends too. You know, I was just sort of like a very adventurous person who always wanted to see what was over the next hill, around the next bend.

George recalled his father taking him fishing somewhere between the ages of 5 and 10 years old:

Oh hell, it goes back to when I was a child. And it was either fishing in the creeks in Auckland or my father taking me fishing off the wharfs in the harbour, one or the other I can't remember which one came first. I guess I enjoyed catching fish, it was as simple as that really. The other people I went fishing with a lot were some of my school friends, they were also family friends, neighbours, two or three of them, that were close to me".

Martin talked about his father being an avid outdoorsman and the lasting impression that this had on him:

When I was a kid, my Dad would take me fishing and I was always excited to be doing something with my dad like fishing regularly. And

then (as I got older), I started going fishing by myself, on my own decision when I was about, maybe twenty.

Like Martin, Marty's father inspired a lifelong interest in fishing from an early age:

I think probably I was about 7 or 8. Dad would bring the fish in and he'd let you touch it. It was so exciting. We threw them in a bucket of water and the touch of them and watching them swim around in a bucket was immensely enjoyable. When I was 9 or 10 years old, I was spin fishing in those first few years. I liked fishing, getting that fish on the end of a line, and then being able to see this wild thing whipping around... very energetic and had a lot of energy.

Marty also spoke about the lasting influence that his family's regular annual camping trips had on him:

... we went on family holidays every year at Christmas time for three or four weeks... camping in the outdoors, camping on the beach...you were immersed in it (all) for three to four weeks and I think that was probably the thing that made me like the whole idea of the outdoors.

One participant (Graeme) seemed a little uncomfortable talking about early family influences and so I redirected my approach to focus on friends.

Graeme relaxed noticeably and responded:

... I always enjoyed walking. As a young boy I enjoyed walking the dog through parks and along rivers and walking tracks...first started tramping in my late twenties with like-minded friends. As far back as I can remember I have always loved the social (and fun) aspects of interacting out in nature with like-minded friends in isolated wilderness environments. I still enjoy these types of interactions.

Early life exposure to outdoor leisure and recreational activities as a family and/or with like-minded friends plays a crucial role in the development of positive attitudes towards the environment, its preservation, and participation in various outdoor recreational activities. What people experience earlier in their lives often influences what they believe and do later in their lives. These healthy attitudes may produce committed outdoor recreationalists and, in any case, is likely to contribute significantly to a person's health and wellbeing. The narratives discussed above clearly demonstrate the importance of fathers and family members as positive role models during early life. In addition, the positive influence of close friends was also significant.

The participants' emphasis on the significance of early life influences echoes the findings of research that correlates early-life outdoor experiences with long-term appreciation of outdoor environments and passionate participation in outdoor recreational activities (Place, 2016; Blaschke, 2013; Brabyn & Sutton, 2013; Sjogren, Hansson, & Sternberg, 2011; Lynch, 2010; Reis et al., 2010). Moreover, studies have found that family interest and participation in outdoor recreational activities has a direct positive impact on early childhood experiences, installing a lifelong sense of responsibility and commitment toward the natural environment and conservation/environmental issues (Place, 2016; Lovelock, 2011; Ewert, 2005). In addition, there is a substantial body of literature that indicates that long term participation in outdoor recreational activities and programmes leads to improved health and wellbeing outcomes over a lifetime (California Department of Parks and Recreation, 2015; Heart Foundation, 2014; Ministry of Health, 2014; Blaschke, 2013; Boyes, 2012; O'Brien et al., 2012; Bowler et al., 2010; Godbey, 2009; Bell et al., 2007).

Schools and youth groups

Schools and youth groups may play an important role in early-life outdoor education and recreational activities. As the following comments indicate, outdoor activity programs run by schools and youth groups held a special place in the memories of several participants:

I would have been 16 or 17 ... probably during secondary school time when the school took students away on camping trips... yes the school was very very encouraging. In my last year at school, we tramped the Hollyford track for a whole week in the holidays. It was in 1956 and, in those days, there was still a lot of deer about. I remember coming across mobs of deer of 80 and 100 in those Hollyford valleys; it was just so incredible (Ralph).

Isaac fondly recalled his experiences with the YMCA outdoor programs run by his school:

In the school holidays, 9 years old until about 16 ... I went to YMCA camps and they were overnight tramps, you know, but I just loved that getting out there and all piling into one bed together, and you didn't have things like sleeping bags and that sort of thing. You made a swag with ground sheets and blankets and string and tied it up and put around your shoulders.

Chad became noticeably emotional when he shared memories of his school's outdoor activities program:

Oh, I'd have to go back to when I was about fifteen, I think probably at school. At school, we had this option to do what was called 'venture group' and it's rather like the outward-bound thing that's used around the world where you do river crossings and abseiling. So there's a bit of rock climbing and a bit of tramping, and mountaineering, even ...

surviving in the bush ... you know, camping out and that sort of thing. So, I remember doing that and having a hell of a good time and climbed my first mountain up near Porters Heights up there in the Craigieburn Range...that was great fun...so again, I think that had quite an effect on me.

When discussing the topic of school and youth outdoor programmes with participants, the subject of safety in outdoor recreation arose. Participants felt that although outdoor recreation safety was of paramount importance, especially when children are involved, that exaggerated safety concerns had become the norm. From their perspective, an 'over-protective society' was negatively affecting the outdoor experience for children, and the preservation of school and youth group programmes. Nonetheless, schools and youth groups still fulfilled an important role in the lives of children and young people in terms of helping to foster enduring values for and towards the environment, as well as direct involvement in outdoor recreational activities.

Opportunities for independence and self-reliance

It seems that an important consequence of early-life exposure to outdoor recreation is the early development of self-confidence, self-belief, and self-reliance. Looking back, participants expressed a sincere gratitude for their childhood introduction to the great outdoors. Interacting with nature, with family and friends, had been a life changing and rewarding experience and they felt privileged as a result. There was consensus among the participants that many youth today took for granted the opportunities that were abundantly available for connection with nature through outdoor recreational activity. This was especially so when one considered what was literally offered on the 'doorsteps' of Christchurch and most certainly within an easy two to three hours drive. Furthermore, several participants seemed to believe

that parents today were at fault for transferring their (at times justified) concerns around outdoor safety, but also in many instances their unjustified or irrational fears onto their children. Being 'wrapped in cotton wool' and 'completely over protected' were common phrases used by participants to describe their perception of the severely curtailed exposure of contemporary children to risk in the outdoors. They believed that many of today's youth appeared to be more interested in following the latest social media trends, acquiring updated technology or other material possessions (e.g. the latest items of fashion clothing), or spending the entire day 'hanging out' at a shopping mall. The quotes below illustrate the frustration and indignation that some participants expressed on these points:

The kids tend not to do that... go camping, tramping or exploring... and the whole of society becomes so fearful of taking risks that they won't allow their kids to walk from home round to the school over there. That's the school over the fence [pointing out the window] and I've got two grandchildren who live a little way round the corner. Their parents have to take them by car and collect them by car. Because that's the fear that they have... somebody might pick up the kids who is not supposed to. There have been a few kids who have been [inappropriately] picked up around New Zealand, [but] not from this particular school (Glen).

Well the way I look at it, the kids will get to the age when they will want to hang around the mall instead of going for a walk up a hill somewhere, because they will be bored stiff... I think we were probably more mature back then. You didn't do stupid things; if you were going to take a risk, you calculated the risk, you didn't just barrel into it like the youth do today... you'd think things through... yes that's the difference in terms of upbringing and responsibility; you had responsibilities from a very young age (Brad).

You see we were allowed to grow up in those days, we didn't have adults living our lives for us like kids have these days... kids these days are pampered so much. They are so protected. They are not even allowed to climb trees without some panic (Isaac).

Reflecting on the comments above, there seems to be no doubt that in today's world children appear to be more at risk of exposure to both random and calculated acts of maltreatment. From this perspective, being an over-protective parent or family member seems justifiable. However, participants were united in their views that depending on the location and environment that children find themselves playing and growing up in, that the actual level of threat is often highly variable and at times negligible. Both groups of participants gratefully recall their parents allowing them to make mistakes, and that they at times learned the hard way (through natural accidents) as children growing up in New Zealand.

In my own experience of growing up in southern Africa,⁴ falling out of a tree or taking a 'rough tumble' while playing outdoors was considered a rite of passage into adulthood. Sometimes these falls led to breaking a bone or acquiring a wound that needed a few stitches. Displaying a heavily signed and colourful 'plaster cast' on one's arm or leg, or 'centipede' like stitches⁵ on a visible part of the body was indeed something of which to be immensely proud. The participants in this research all related wholeheartedly to my early experiences, while also suggesting that many children in New Zealand today do not have the same opportunities for early experiences of risk while 'exploring and playing outdoors', be it for economic, social, or political reasons, or simply because over protective parents/caregivers seek to protect them from such experiences.

⁴ I was born and raised in various southern African countries.

⁵ Before the advent of modern suturing and laser technology, wound stitches took on the appearance of a crawling centipede.

Key Theme 3: Outdoor environment preferences

Participants were asked about their preferred outdoor tramping and fishing environments, and what had determined these preferences. For the trampers, alpine environments were by far the most popular tramping destination. However all six trampers talked about enjoying both short and long duration walks in the local hills and nature reserves, along the coastline, and even through residential suburbs when alpine trips were not possible.

Isaac “loved getting up in the snow” and talked about his passion for navigating steep slopes, narrow ledges, and bluffs. If he could not get out for a tramp in the alpine snow he would “go out before tea [dinner] in the evenings and do four to to six kilometers at a fast pace, just flat walking around here [neighborhood]”. Glen also talked about walking around his neighborhood environment in the evenings and on weekends when not away on overnight alpine trips. Brad, a semi-retired sound engineer with similar tramping and walking habits, told me that he did not really mind in what environment he tramped or walked because he enjoyed the variety of different locations, terrain, fauna, and flora. However, getting up as high as possible was important to him:

... you keep moving and get up on the top. When the snow's around, you get up on the top. When the tide's out, you get out on the coast. I don't really mind, I like the variety you know. You get to the top and take it all in ... it is having a look and going, I don't know, “what a great work of art”. It's just that's New Zealand, it's a different part of the world that you wouldn't see unless you were there.

Graeme and Chad voiced similar tramping preferences to Brad and Isaac. Graeme talked about “getting up [in alpine environments] to look back down

and away. It's the wow factor and it feels pristine, clean, and fresh". Chad reflected on his past tramping experiences and current tramping activity:

I like the scale of it really and the grandeur of it and the altitude. I mean I'm quite keen on going up (steep) hills... it's always (tramping) involved hills and being up in the hills... well it's hill climbing but walking and hill climbing.

The above narratives demonstrate the passion and enthusiasm of the trampers for alpine climbing (hard long walks) and basic walking (easy/short walks and tramps). Their descriptions support current research statistics published by Sport New Zealand (2015) that show walking is the most popular outdoor recreational pastime in New Zealand for males (46.8%), across all age groups (16-75+).

The trampers in this study were fortunate to enjoy access to a wide variety of walking and tramping opportunities within two or three hours drive of Christchurch, ranging from short walks and easy tramps to hard multiple day/night tramping trips. In addition, there are considerably more extensive mountainous wilderness areas (both public and private with public access) suitable for remote tramping experiences in the South Island than in the North Island (Brabyn & Sutton, 2013). Many of New Zealand's 'Great Walks' are in the South Island and are located within magnificent natural landscapes with breath-taking views, snow-capped mountains, deep valleys, and crisp clear flowing mountain rivers that are highly valued by people mainly located in the South Island (Brown & Brabyn, 2012).

With an unparalleled diversity of natural settings and a plethora of outstanding fishing environments, fly-fishing enthusiasts are literally spoilt for choice in New Zealand. Keen anglers have the opportunity to fish in a

different stream or river every day, usually within a few hours drive of most towns and cities. The South Island in particular enjoys access to some of the best-sighted⁶ river and stream trout fly-fishing in the world (Tourism New Zealand, 2017). The four anglers interviewed in this study could fish in almost any type of environment when the opportunity arose. However, back-country rivers, streams, and lakes holding healthy trout populations seemed to be their preferred fishing environment. It is interesting to note that all four anglers used the terms 'trout hunter or hunting trout'⁷ when describing aspects of their fishing experiences. There was a perceptible sense of pride in tone of voice and body language when the anglers talked about stalking and hunting trout.

Over the course of their interviews, it became clear these anglers considered 'trout hunting' to be the 'crème del a crème' of fresh water fly-fishing. Garth considered himself a 'trout hunter' and preferred river/stream fly-fishing to lake fishing: "Yes, I prefer rivers generally speaking, to lakes, but I do like both. Yes, rivers are special, they are living waters... it's more challenging". Conversely, Martin, also a self-confessed 'trout hunter', preferred fly-fishing along lakeshores to river or stream fishing: "without a doubt, in my opinion, lakes are a lot harder. My number one place for fishing is lakes ... (especially) Lake Percy in Northern Canterbury". Marty was an ardent fly-fisherman and enjoyed regular fishing excursions to both marine and fresh water environments. When asked if he had an absolute preference for a particular fishing environment, the response was emphatic, "yes, yes, yes, rivers definitely rivers". George on the other hand, had no absolute preferences, however fly-fishing rivers or lakes for trout was his first choice:

⁶ The term 'best sighted' refers to visible trout fishing, where the fish is 'sighted' by fly-fishermen, normally before the fish becomes aware of the angler.

⁷ The term 'hunting trout' is an expression frequently used by ardent trout fly-fishermen who consider themselves to be 'trout hunters' who 'stalk' trout along lakeshores and riverbanks.

“there’s not an absolute preference, my preference is firstly to catch trout, and sometimes I go fishing for Kowhai or other sea fish. Occasionally I go fishing for salmon but my preference is trout fishing”.

People participate in recreational fishing for a range of different reasons. These include the desire for solitude, a wish to escape from the stresses and slog of everyday schedules and demands, wanting to socialise outdoors with family and friends and, more simply, to catch and eat their own healthy food. Indeed, fishing is the second most popular outdoor recreational activity for New Zealand men, behind only walking/tramping (Sport New Zealand, 2015). Considering its popularity, it becomes easy to understand the enthusiasm and passion the anglers expressed during our interviews. They enjoyed abundant outstanding opportunities to catch their favourite fish in their favourite fishing environments, all within easy driving distance of Christchurch City (1-3 hours drive). The Canterbury region is drained by three large river systems (well known for trout and salmon fishing) with numerous smaller trout rivers and feeder streams and there are more than 25 fishable lakes (Tourism New Zealand, 2017).

Frequency and duration of tramping and fishing trips

Given the opportunity, all participants would tramp or fish as often as their personal circumstances allowed. In practice, available leisure time (reflecting work and family commitments), physical ailments, age of dependents (young children, teenagers, adults), prevailing weather conditions, and permitted fishing seasons were all significant factors affecting the frequency and duration of tramping and fishing trips undertaken.

Both groups were asked how often they went tramping or fishing. Several trampers talked enthusiastically about getting out for day tramps/walks on a weekly or bi-weekly basis. In addition, undertaking extended trips three or four times a year (or more if possible) that range in duration from two to seven days appeared to be favoured by all trampers. The following examples illustrate:

Now it is once a week, plus three 'one-week aways' per year. But, you know, I will go out before tea (most evenings) and do four to six kilometres at a fast walk, just flat walking around here (Isaac).

Well I have increased it recently, so I would say every couple of weeks I go on a day tramping trip. And probably four times a year I'd go on a multi-day trip, three or four days for a trip (Chad).

I get out every week if I can. Also, I just love that sort of stuff... I love overnighting in a hut and making for a hut and camping (Ralph).

Two or three times a year we go on extended trips.... and yes on a monthly basis usually Friday night, Saturday night, coming back Sunday Afternoon (Glen).

I generally try to get out once every two weeks if not once a week (Brad)

Two or more times a week or as much as my body and time would permit (Graeme).

In comparison to the trampers, and taking into consideration the constraining factors mentioned above, the anglers would undertake fishing trips as regularly as their personal circumstances permitted. For instance, Garth talked about fishing "at least 100 days per year, probably more like 150 days", and George said "let me put it this way...I need to go fishing regularly. I would try to fish twice a week for the year... in the winter I do a

lot of (away) trips". When reflecting on his past fishing experiences, Marty explained that he used to fish more frequently before he settled down to family life:

Well I probably go fishing ... I'd say once a fortnight at the moment and then that's, you know, because I've got two little kids, so it makes it quite hard. But back about ten years ago, before I had kids, I was going, you know, every weekend virtually. I mean there wasn't many weekends that I wasn't going and even maybe one day during the week as well where I could take time off [work] where I had, you know, outside of lecture time and things like that, a bit more free time.

Similarly, Martin also explained how work and family commitments had influenced the frequency and duration of his fishing activities:

I like to go in season, when I'm not under a lot of pressure at work, which is between like now, November, and to the beginning of classes in February. That's hopefully one day of the week, but the weather has to co-operate and then if something comes up that I can't cancel on the day... that's where it goes off. I probably only get out about ten times per year with those sorts of rules in place, only about ten times.....like last week the boys got out of school about four o'clock and at five o'clock they start their swimming, until about six thirty. And I had fished, I got a phone call from Kate [wife] and I was on the river about ten minutes to five and I was somewhere up the Ashley river, and I wanted to be back down to Rolleston to see the last bit of their lesson, and I was just arriving back in the parking lot when they were coming out of the swimming. So I just missed it. But the reason for that is because I went an extra ten minutes further, which is a problem like that.

These findings regarding the frequency and duration of trips are consistent with existing research. They support observation that overnight trips of more than a few days duration were favoured by enthusiastic outdoor

recreationalists who enjoyed activities like fishing, camping, tramping, and hunting (DOC, 2014; Brabyn & Sutton, 2013; Espiner, 2011). Additional studies in the field of nature based adventure therapy indicate that, when spent actively in natural environments, longer duration trips result in better overall personal health and wellness outcomes (Gass et al., 2012; Dickson, et al., 2008; Martin & Legg, 2002). It has also been observed that family responsibilities and having dependent children tends to reduce the frequency and durations of trips away, as was the case with both Martin and Marty (Espiner, 2011; Reis et al., 2010; Gidlow & Cushman, 2008).

Role in life: Part time hobby or serious pursuit?

I was looking forward to talking with participants about the role that fishing or tramping fulfilled in the lives. For some reason I noticed I held a preconception that both the trampers and anglers would consider their chosen recreational activity as a part-time hobby that might sometimes get serious.⁸ Nothing could have been further from the truth. For this particular group of trampers and the anglers, only the top quality equipment, clothing, and supplies would suffice. Organising and planning for upcoming tramping or fishing excursions took on the hue of a precision military operation; it was most certainly not a quick dash to the closest hills or body of water.

When participants were asked to rate the importance of fishing/tramping to their overall lifestyle on a sliding scale of 1-10 (with 1 being not so important and 10 very important), there was consistency across all responses. When their responses were aggregated, the trampers had an average rating of 8.8/10. Some of their comments were as follows:

⁸ Fishing and tramping events, competitions, annual group club activities

I suppose you've got to put it at an 8/10, [although] there's other things in life besides tramping you know" (Isaac).

... 8 or 9/10 because I must be able to move onto something else if I could no longer tramp" (Graeme).

An 8, I'd have to say. Yes, so long as I can do my tramping that would be enough for me... staying out in the hills well I love it (Chad).

That's easy 11/10 (Brad).

10/10... I don't know what I'd do if I could not tramp... I'd certainly have to revisit places (Ralph).

I would have to say 8/10 (Glen).

These ratings indicate that the participants strongly valued tramping and the role that it played in their lives. Nonetheless, all participants indicated that there would be life after tramping. There would be something else for them to move onto in spite of their current relationship with regular tramping.

The anglers were more passionate again about their preferred outdoor pursuit, with an average rating of 9.7/10. The following responses illustrate their passion:

It's a 10 straight up! It's one of the very few things that I do for myself, that's simply for me (Martin).

...11/10... well it really is you know, it's not a matter of life or death...it's more than that. I saw that on the back of a car... that is a good one (Garth).

Oh, I suppose it's either a 9 or 10 really. Priorities change a little bit when you've got little kids (Marty).

It's probably 9 currently. If I were single, I'd probably say 10 (George).

As with the trampers, but perhaps a little more earnestly, the anglers were very fastidious about their fishing pursuits and activities. It appeared that they would go fishing as much as they could, whenever they could, whenever the opportunity arose. Nonetheless, they all acknowledged that when other priorities surfaced [normally family and work related situations], fishing would definitely take a back seat, albeit reluctantly at times.

Across all participants, an average response of 9.2/10 clearly indicates that tramping and fishing were much more than part-time hobbies for these men. The passion, pride, and importance they attached to tramping and fishing cannot be understated. These findings substantiate New Zealand research that shows walking/tramping and fishing as the top two most popular outdoor activities for men respectively (Sport New Zealand, 2016). It also echoes research from the USA that ranked fishing and tramping (hiking) as the third and fourth most popular outdoor activities respectively for men (The Statistics Portal, 2016; Outdoor Foundation, 2012).

Alternative and substitute activities

The participants were asked what they would do, and how would they feel, if they could no longer pursue their tramping and fishing activities. This question solicited some very emotional replies from both groups. A common theme across all participant responses seemed to be that regardless of various physical limitations [whether actual or hypothetical] such as leg/back/knee injuries, being wheelchair bound, having to use crutches, or confined to a vehicle, participants would try to find a way to continue with their favourite outdoor pursuit. If it was really not possible, they would find a

more suitable outdoor activity that fitted with their personal circumstances.

The following comments are good examples of this perspective:

I don't know what I'd do if I could not tramp. I'd certainly drive to places and get someone to push my wheelchair, I don't know, I'd certainly have to revisit places... look, even if I was on crutches I would do something. I'd be really down in the dumps. It has gone through my mind because I've had two hip replacements and when they (my hips) started to pack up, I thought what am I going to do, what am I going to do? Look it hasn't held me back, I've sort of forgotten about them (my hips) you know, and it hasn't worried me at all. So, yes, I'm still tramping... I don't know what I'd do if I couldn't tramp. It's part of my weekly living (Ralph, tramper).

If I did suddenly get a problem with my knees or my hip or my leg it would be very significant but I would find something else. And if I could get there in a car or a motorbike and go all the way up the track even though I would be sorry I couldn't get further, I could still get some connection with nature (Glen, tramper).

The anglers were no different to the trampers in describing their motivation to continue fishing in spite of physical limitations, or if fishing was no longer possible, to find a suitable outdoor alternative:

Oh God, I'd be gutted. I'm going fishing no matter what. I mean, I've told guys that when I'm in the bloody wheelchair, you better push me to the lake's edge. When I can no longer do the hard yards, I will still be fishing. There is still lots of fishing (Garth).

I do think about that hypothetically from time to time, always hypothetically. Yes, it would be a very difficult adjustment but because I've made a major adjustment (life change) and my passions have changed in the past, I know that, well I expect that I would be able to find some other (outdoor) thing that would maybe not be as good but would be an okay substitute. It would not be the end of my world, but it

would alter a lot of other things, a lot of the value of the things that I am currently doing (George).

Yes, I think I'd be thinking about what my outlet would be really. You know, work related stresses and things like that. I'd need to have an outlet for that so if I wasn't fishing then what would I do? Yes, it would be outdoors related. I've recently got into kite surfing so I guess I'd do that. I'm just learning it at the moment so yes I'd find another (outdoor) sport... I suppose for that stress as an outlet you know. To be able to take my mind off work and other things... there's nothing indoors that would do it for me. It would have to be something outdoors (Marty).

Overwhelmingly, participants were determined to find an alternative or similar outdoor recreational activity when the time came that they could no longer tramp or fish in the way they currently enjoyed. A few participants mentioned they would drive out into the country and find places where they could still access and enjoy the ambiance and specialness of natural environments, and/or cast a fishing line without having to walk hard or far. Some others talked about accessing local council or DOC parks and reserves that offered wheelchair friendly tracks and trails. One tramper described how he would ride his motorcycle as far up the side of a mountain track as he could, so as to access scenic view points and 'get his nature fix'. Regardless of the participants' desire to continue pursuing some form of outdoor recreational activity for as long as their bodies would allow, there was consensus that they would be able to adjust in some way if/when their physical capacity changed, in spite of the difficulties such changes might bring.

During their respective interviews and in response to their descriptions above, I suggested to Martin and Marty that walking/tramping in nature could still bring them in touch with great outdoor environments, should fishing ever become a non-viable option. Both men were 'serious fishing enthusiasts' and

they were both adamant about their lack of interest in walking/tramping for its own sake:

It's a combination of things that makes me want to be in that (great outdoor) environment. I'm not a trumper. I won't walk anywhere for no reason. I'm walking because it's going to be going to fish (Martin).

So it wouldn't be something simple as tramping either. I need to be doing an activity, and tramping doesn't really hold a lot of interest for me, just tramping on its own. So just walking in the bush with no real point to where I'm going, no! Oh maybe I'm going somewhere but to me I like to have more of an objective than simply walking through the forest. So the fishing, you know, a lot of people say "I could be fishing here in the bush and I wouldn't have to be catching fish, it's just lovely being here". [But] that's not for me. I mean, I like being there as well and the environment is an important part of that, to make fishing more enjoyable, but why I'm there is for the fishing. (Marty).

Both groups talked sincerely about the importance of finding an alternative or substitute outdoor recreation activity in the event that they could no longer tramp or fish in the manner that they were used to. The main reasons given for wanting to continue with an alternative activity were regular connection with nature, maintenance of optimal health, and prolonged longevity. These findings are largely consistent with studies that suggest that substitution behaviour is common amongst outdoor recreationalists (Place, 2016; Lovelock et al., 2011; Sutton, 2006; Shelby & Vaske, 1991; Iso-Ahola, 1986). Additionally, it was found that although in-door recreational activities could replace outdoor recreational activities on a physical level, the unique aesthetic, ascetic, and spiritual qualities associated with outdoor recreation participation could not be easily replaced (Espiner et al., 2011; Genter & Sutton, 2008; Lovelock, 2008; Mackay, 1987).

It is interesting to note here, considering the participants' responses above, that a replacement activity is considered an alternative activity and does not provide the same benefits for an individual as the original activity (tramping or fishing). To be considered a substitute activity, the replacement activity must fulfil all of the individual's previous recreational needs and provide similar outcomes to the original outdoor activity (Genter & Sutton, 2008; Iso-Ahola, 1986). Additionally, choosing either an alternative or a substitute activity is determined by the perceived overall benefit it would have for the individual (Shelby & Vaske, 1991).

Key Theme 4: Reasons for preferred environments

Both groups were asked what had determined the preferred environments for their recreational activity. For trampers, the attraction of accessing breath-taking panoramic landscapes in alpine expanses seemed to be the main reason for their choice of tramping environment. Isaac and Brad elaborated:

I really like getting up high. I just love getting up and appreciating the view. It's funny, if you could go up there in a car and look at the same view it's nothing compared to if you've spent 5 hours getting there, the view is something out of this world. I like getting out of the bush because it gets claustrophobic after a while, but I just love the type of tramp that you go on where you've got a bit of everything. You walk beside a river, you're walking through the bush, you're walking through the open tops (Isaac).

I find it exciting from the point of view that you are always seeing something new. That's what I like, I like new experiences, and it's a real good way of getting them and all the beneficial side effects. You know, you slog up the hill, you wonder why the hell you are doing it and you get to the top and it just disappears (the hard slog feelings). It

just makes you feel good... it's being up and looking down and around... it's just a different part of the world (Brad).

The reason why alpine environments were preferred by all trampers seems to be because of their appreciation for the magnificent and unparalleled panoramas on offer in the South Island's pristine alpine environments. This finding is consistent with research that attests to people's pursuit of a direct aesthetic experience in naturally beautiful environments during outdoor recreation and leisure activities, and the value placed on this (Lynch & Dibben, 2015; Brown & Brabyn, 2012; Davidson & Stebbins, 2011; Lovelock, Jellum, & Thompson, 2011; Brymer & Gray, 2009).

The main reason for the anglers' preferred choice of environment appeared to be that it allowed access to remote and spectacular backcountry river and lake environs, settings where the human presence is minimal or non-existent. George and Garth explained:

The majority of times I go fishing, I go fishing by myself and generally I try to find a place where I can be by myself... somewhere where I'm not going to find another angler within a few kilometres. I can lose myself. Let's put it this way, the best experiences I've had fishing are in places where there are not many people or no people, and they are the best experiences. The top end of that is to be in a remote or beautiful location (George).

I like to do rivers and backcountry stuff and it's quite demanding physically... so because I want to fish those areas I go a lot by myself. I fish lakes with other friends who are not fit enough (to do rivers) or just don't have the skills... there's a lot of skills needed to fish a river effectively, especially with a fly rod and casting line: control, mending, reading the water, picking out the places that fish are going to be. It's more challenging. The hours fly by. Lake fishing can be boring. I like to be hunting (trout) and active and moving (Garth).

Martin's passion for his choice of fishing certain environment was obvious:

It's a combination of things that makes me want to do it... I won't walk anywhere for no reason. I'm walking because I'm going fishing, it's going to [get me] fish. It's a reason to get out and when I'm out there, I do take time to take in the environment. I do make sure of that, I just do notice the environment that I'm in and I notice how clear the water is and the fact that I could probably drink the water and get away with it... and the mountains, the clear air, the fresh smelling... yes. The mountain views, many times there's still snow on the mountains and I'm thinking, oh the solitude of mountains (Martin).

The anglers' primary purpose was to 'hunt and catch trout' in remote and pristine back-country river environments, where encounters with other people were unlikely. This finding links well with studies that suggest skilled and experienced fly-fishing anglers have a preference for back-country river environs where human presence and environmental disturbance and degradation is non-existent or at least minimal (Fish & Game, 2016; Beville & Kerr, 2008; Bryan, 2000, 1977).

Key Theme 5: Factors that influence choice of environment

When asked to elaborate on the factors that influenced their choice of environment for tramping/fishing activities, participants mentioned seasonal weather, environments that enabled them to keep physically fit, and the probability of sight fishing⁹ (for trout). For Brad and Glenn, for instance, the weather determined where they would choose to tramp:

... it (their preferred location) changes according to the season. When the sand flies are around, definitely not the bush, you keep moving and get up on the tops. When the snow's around, you get up on the tops. When the tide's out, you get out on the coast. I don't really mind, I like the variety you know (Brad).

⁹ Sight fishing involves spotting a fish first, then stalking it while trying to coax it to eat your fly or lure.

Well, I'd go by the weather. I'd choose where I'd like to go and then I'd see what the weather's doing. So, if you're going to Arthurs Pass, up the main divide is going to be wet in the westerly eventually, so you'd go way out to the east. But I usually organize to have two different places to go and then choose according to the weather. And, if I've got tramps I want to do on the West Coast (if you occasionally get the easterly or the southerly coming that way you can have it fine), but usually the coast is going to be wetter than the east. So quite often we would end up going and doing tramps up on the eastern side (Glenn).

For George, seasonal weather changes dictated his choice of fishing location and environment:

So in the winter I do a lot of fishing trips to the Waitakere Lakes [North Island, West of Auckland] because they can fish quite well in the winter. In the summer months I fish close to home [within 1-2 hours drive from Christchurch] because I can. In between seasons, I'll do a few overnight trips into the mountains, mostly for lake fishing but sometimes rivers too.

Based on the responses from participants, and in particular the three narrative examples quoted above, it appears that seasonal weather is a major factor influencing choice of recreational environment. Numerous studies (Lovelock et al., 2011; Reis et al., 2010; Bell et al., 2007; Tucker & Gilliland, 2007) confirm the influence that seasonal weather can have on participation in outdoor activities, especially when factors like temperatures, daylight hours, wind strength and direction, precipitation, snow and ice, need to be taken into consideration.

A number of participants explained that physically challenging recreational activity influenced their choice of environment. For seventy six year old Ralph, for example, choosing physically challenging tramps in alpine

mountain environments was all about personal fitness and pushing himself to the limits of his capabilities. However, with age, his ability to push himself as hard as he had in previous years had declined, as he explained:

... in those earlier times [when he was younger], I enjoyed doing alpine mountains, I think because I was younger and really, really fit. It was a fitness thing I think – you know, nothing could stop you. You just wanted to go on and on and you never got tired ... as you get older, you realise that you can't do those very high mountain peaks anymore, so you drop down (a little) to do the lower stuff. But it's still all purely for fitness ... your body is being worked all the time and your lungs are certainly going (Ralph).

Isaac's determination to maintain high levels of physical fitness by choosing to regularly tramp in easily accessible alpine environs was rooted in the fact that he is a double-hip replacement recipient, and his keen awareness that chronic diseases and complications are more prevalent amongst physically inactive and sedentary groups in older age (Owen et al., 2000).¹⁰ In addition, there is a consistent body of evidence indicating that increased physical activity is more likely to occur when people have access to outdoor recreational locations that provide the opportunity for making physically active recreation choices (Blaschke, 2013; Brabyn & Sutton, 2013; Dickson, 2008; Owen et al., 2004; Giles-Corti & Donovan, 2002).

Garth's choice to fly-fish for trout in backcountry river environs was influenced by the skill and experience needed (in his opinion), to effectively fish a river:

... it's more concentration, more skill needed to fish a river ... there's a lot of skills needed to fish a river effectively, especially with a fly rod

¹⁰ Isaac is seventy-six years old

and casting line control, mending, reading the water, picking out the places that fish are going to be ... it's more challenging (and) the hours fly by. Lake fishing can be boring ... I like to be hunting [trout] and active and moving.

Martin, on the other hand, thought fly-fishing for trout in fresh water lake environments required more skill and experience, and was far more challenging than fishing a river. As he explained:

...the reason why I say [lake fishing] is more difficult than if you go down a river is because in a river the fish are always pointed upstream. Almost always ... but if they're chasing food they'll turn downstream and chase it and take it downstream. But normally they're facing upstream. At the lake, the fish that you're going to see is the fish that's coming right at you. If it's coming right at you as soon as it sees you, it's out of there. So you've got less than five seconds to gather the line and cast it before he sees you. And if you don't get it [right] he's going to keep coming [and see you].

Although Martin had previously explained that in the event of physical injury he believed fly-fishing lakes would be physically less demanding than river fly-fishing, he also believed that fly-fishing lakes required more skill, patience, and experience. Garth, on the other hand believed fishing backcountry rivers and streams was the ultimate test of one's fly-fishing skills. This 'difference of opinion' appeared to be a simple matter of personal choice and not an indication of individual skill or ability. During the course of this study, data from reviewed literature relating specifically to comparisons and/or perceptions about preferences for river or lake fly-fishing was not found. However, there is research suggesting that many trout fly-fishers consider fly-fishing rivers and streams to be the most specialized and highest form of fly-fishing (Beardmore et al., 2013; Lovelock, 2008; Snyder, 2007). This perfection of skills and the application of hard earned experience during

the extended practice of stalking trout in back-country rivers and streams seems to be a treasured and almost sacred process for passionate fly-fishers.

Summary

In this chapter, I presented the findings that emerged from the research data and discussed them in relation to the reviewed literature, using a narrative approach. Five key themes and a number of sub-themes were identified. For trampers and anglers alike, the research showed that their chosen outdoor recreational pursuits played a pivotal role in their lives, providing them with important health-related benefits across the physical, mental, social, and personal development/self-actualization domains. Furthermore, the research highlighted the positive influence that fathers, families, close friends, schools and youth groups can have on the development of positive attitudes towards and appreciation of natural environments and outdoor recreation activities. The findings from this study have many parallels in existing bodies of literature. Some aspects of the findings were not strongly represented in the existing literature, however, and in some instances it was not possible to identify any corroborating studies at all.

In the next chapter I will provide a brief summary of this study's aims, research methods, and the key findings. I will also discuss the study's limitations and offer suggestions for future research into men's health and outdoor physical recreation.

CHAPTER SIX: CONCLUSION

In this concluding chapter, I summarise the aims of this research on men's health and outdoor recreation, the research methods I used, and provide a summary of the key findings. I discuss the study's limitations and offer suggestions for future research on men's health and outdoor recreation, both in New Zealand and more broadly.

Research aim and methods

The aim of this qualitative descriptive study was to answer the question: What are the experiences of men who enjoy fishing and/or tramping in the great outdoors of New Zealand? Answering this question began with a review of existing knowledge regarding the health and wellbeing benefits of outdoor recreation and physical activities in natural environments. Through this research, I then explored how a group of New Zealand men perceived the role of tramping or fishing in their lives. In exploring these men's experiences, I sought to better understand why men regularly participated in outdoor recreational activities in natural environments and how these activities influenced their health.

The research employed a qualitative descriptive approach, with semi-structured interviews as the main method (Bryman, 2008). According to Gubrium and Holstein (1997), 'naturalistic inquiry' is one of four main traditional qualitative research approaches. There were several reasons why a qualitative descriptive study design using the naturalistic approach was well suited to answering my research question. Firstly, naturalistic enquiry allowed me the opportunity to talk and interact with the study participants face to face, and to gain rich insight into how they experienced fishing and

tramping, and the role these activities played in their lives. Second, I was encouraged to employ a naturalistic qualitative descriptive approach by Sandelowski (2000), who describes naturalistic qualitative descriptive study as avoiding any preceding commitment to any one particular philosophical or theoretical opinion of the target phenomenon (which here was the experiences of men fishing and/or tramping in the New Zealand outdoors), and without any pre-selection or manipulation of variables. Finally, I was inspired by Bryman (2008) who proposes that “naturalism seeks to understand social reality in its own terms, ‘as it really is’, and provides rich descriptions of people and interaction in natural settings” (p.367).

To select participants for the semi-structured interviews, I employed a form of purposive sampling called ‘snowball sampling’. Snowball sampling involves the researcher making first contact with a person or small group of people who are central to the research, and these initial contacts are then used to make contact with other suitable participants (Bryman, 2008; World Health Organisation, 2014). In this research, I approached the presidents of six tramping and six fishing clubs in the Canterbury region of New Zealand, with summary details of my proposed study. Overall, I received 20 expressions of interest from prospective participants, spanning three tramping clubs and two fishing clubs. Initially, I had planned to interview 6-8 males aged 18 years or older from consenting angling clubs and 6-8 males aged 18 years or older from consenting tramping clubs. However, after being unable to settle on times and dates (3 respondents), repeated failures to meet at arranged places for interviews (4 respondents), and ill health issues (3 respondents), I was in the end able to interview 10 participants.

To enable participants to talk at depth and in their own words about their experiences, I used semi-structured interviews with flexible open-ended

questions. Semi-structured interviews are able to generate detailed and rich qualitative data, especially when employing open-ended questions (Bryman, 2008). This approach facilitated flexibility, flow, and ease in the responses from participants, and in how I conducted the interviews. To analyse the interview narratives, I employed a form of thematic analysis to identify significant themes within the data (Woods, 2011, Bryman, 2003). By closely examining participants' responses and looking for patterns and/or similarities and differences between groups, I identified five key themes and a number of sub-themes. Finally, due to the nature of the research question and the research methods used in this study, I chose to use a narrative inquiry approach to discuss my data findings in relation to the research literature. A narrative inquiry approach is a way of understanding and exploring particular experiences through the spoken words and social interactions with participants as told through their own stories (Atlasti, 2017).

Key Findings

As noted above, I identified five key themes in the participants' interview narratives: health and wellbeing effects; early life influences on passion for the outdoors and outdoor activities; outdoor environment preferences; reasons for preferred environments; and the factors that influenced a participant's choice of environment for tramping/fishing activities. The following paragraphs summarize the key findings for each of these themes.

Health and wellbeing benefits across the physical, mental/psychological, social, personal development, and self-actualisation domains were described in detail by all participants in this study and this linked well to the international literature on the health-enhancing impacts of outdoor recreation

(e.g. Outward Bound, 2014; Annerstedt & Wahrborg, 2011; Bowler, 2010; Godbey, 2009; Bell et al., 2007).

Early life influences from the participants' fathers, family, close friends, schools and youth groups played a crucial role in the development of enduring positive attitudes towards the preservation of natural environments and participation in outdoor recreational activities.

Alpine environments were the most popular destinations for trampers while backcountry rivers, streams, and lakes were most favoured by anglers. For both groups, extended overnight tramping and fishing trips were far more popular than single day trips. Tramping and fishing was also more of a serious pursuit than a part-time hobby for all participants. Both groups of participants indicated that they would find an alternative or substitute outdoor recreation activity in the event that they could no longer go tramping or fishing.

For the trampers, accessing breath-taking panoramic landscapes in alpine expanses was the main reason for their choice of tramping environment, while the anglers' preferred environment appeared to be about accessing remote and spectacular backcountry river and lake environs where the presence of humans was minimal or non-existent.

Other factors that influenced both groups' choice of environment for tramping or fishing activities included seasonal weather, environments that enabled them to keep physically fit while tramping or fishing and, for the anglers, the probability of sight fishing (for trout).

This research suggests that regular participation in some form of outdoor recreational activity in natural environments seems to play a significant role in promoting and maintaining health over time. Participants with hip replacements or those struggling with spinal issues, leg, knee, or ankle ailments all reported significant health benefits as a result of their regular outdoor recreational activities. This was also the case for those experiencing the lingering effects of rheumatic fever, rheumatoid arthritis or various other physical illnesses.

In addition, the research suggests that the natural environments in which outdoor recreation takes place – settings such as alpine mountains (tramping) and backcountry rivers, streams and lakes (fly-fishing) – were in themselves often conducive to reducing stress and anxiety; this was particularly the case for participants who led busy urban lives, with demanding family and work related commitments and issues. In addition to the positive physical and mental health side effects of recreation in naturally spectacular and awe-inspiring environments, overcoming the many challenges that one is confronted with in alpine environments and back country waters was also an opportunity for improved self-confidence and personal development through self-reflection. Early life exposure to natural environments through various outdoor recreational activities – be it with family (especially fathers), friends, schools, youth groups or mentorship programmes for children – seemed to have positively influenced the participants' engagement with outdoor environments in their adult lives, and this in turn is likely to benefitted their health.

Limitations

When reflecting on the study design and what I might do differently if I had the opportunity, I would still employ the same overall methodology and qualitative methods. There are, however, a series of minor changes I would implement. Firstly, I would have allowed for the time and extra effort needed to recruit a minimum of 10 trampers and 10 anglers to participate in interviews. Initially I received 20 expressions of interest to participate in my study. However, as previously mentioned, only 10 out of these 20 respondents eventually participated in the research. If it had been possible to recruit a larger sample of participants (20 in total), and then use revised and improved open-ended questions as part of a semi-structured interview, I would have been able to access a wider range of participant experiences, with possibly more nuanced data as a result. Overall, this would have enriched the project and enhanced the reliability of the findings.

Second, I would have negotiated with prospective participants for more 'interview appropriate' locations. Public libraries, busy coffee cafes, home lounges with family talking and making comments in the background, or busy work place offices with phones ringing and personal assistants interrupting were not always conducive to an in-depth and personal research interview. More suitable interview locations could be places that were more peaceful, including sites somewhere in nature or in a local park or nature reserve. I believe these types of locations would have been more conducive to private face-to-face conversations, with minimal distractions. In retrospect, I feel I gave prospective participants too much leeway in deciding where they wanted to be interviewed. I believe that letting respondents chose a place of their liking saved on time and reduced possible inconvenience to them but

that, in hindsight, their focus and concentration was arguably not entirely on the questions we were endeavouring to discuss and explore in depth.

Third, given the chance, I would not have outsourced the transcription of any of the interviews. Due to time constraints, I outsourced four of the longest interviews for transcription. Having done so, I feel I lost some of the personal rapport and connection I had developed with participant's interviews when transcribing them. Reading someone else's transcription while referring to my field notes and thinking about the particular participant felt a little disingenuous, and at times disconnected. In addition, the quality of outsourced transcript work was not up to the standard needed, and subsequent checking against the interviews revealed that a lot of the nuance and details had unfortunately not been captured. This was disappointing but I was regrettably unable to rectify it. In contrast, my self-transcribed transcripts captured a noticeably greater amount of nuance and detail from the interviews. Self-transcription allowed me to better capture the rich narratives that emerged out of the rapport I had developed with the participants.

Avenues for future research

The literature review established that there is considerable evidence of the positive health and wellbeing benefits that can be gained through the pursuit of outdoor recreational activities in natural environments (Sport New Zealand, 2015; Blaschke, 2013; Lovelock et al., 2011; Bowler et al., 2010; Reis et al., 2010; Godbey, 2009 ; Dickson et al., 2008; Bell et al., 2007). Empirical health and wellbeing outcome studies are vitally important to many research disciplines as they provide a sound and accepted basis for evaluating and measuring the efficacy and cost efficiency of various

programmes, interventions, treatments, and activities. Different types of health and wellbeing conditions can be assessed with different measurements (e.g. subjective measurements such as self-reported changes to an individual's emotions, feelings, outlook on life, life style and sense of self; and objective measurements such as blood pressure, weight loss, blood glucose and cholesterol levels).

A number of gaps were identified in the literature, some of which can be restated here. First, it appears to be difficult for researchers to replicate the findings of previous studies in which short to long-term health and wellbeing benefits were observed across individuals of various genders, ages and socio-economic status who regularly used natural environments for outdoor recreational activities. Problems with the quality of evidence, small sample size, poor sampling methods, lack of control groups, lack of long-term post study follow ups, generalisations, and randomisations also made it difficult to compare findings between studies in a rigorous manner. Additionally, it appears that systematic in-depth longitudinal studies that measure the permanence of improved health and wellbeing outcomes for specific groups who pursue specific outdoor activities in natural environments are in short supply. As a consequence, there is significant opportunity for research into the relationships that may exist between natural environments, outdoor recreational activities, and positive health and wellbeing outcomes for people of all ages and demographics.

Given the health and wellbeing related benefits of outdoor recreational activities in natural environments, as evident both from this study and the existing literature, it would be useful to undertake robust and rigorous research into the following topics:

- i. The short and long-term health and well-being effects of specific outdoor recreational activities (e.g. camping, tramping, fishing, hunting, biking, diving, skydiving, water skiing and canoeing/kayaking).
- ii. How accessible and affordable are outdoor adventure and recreational activities to men from lower socio-economic backgrounds? What outdoor recreational opportunities in natural environments are available for men from lower socio-economic backgrounds?
- iii. The influence of socio-economic status on men's access to and engagement with outdoor recreation environments and activities
- iv. Longitudinal investigations of the health and well-being effects of outdoor adventure and education programmes run by schools, youth groups, public groups, and various correctional programmes, examining their overall impacts in terms of lasting positive health outcomes.
- v. The positive effect that early life exposure to regular outdoor recreational activities may have on male teenagers' long-term health and wellbeing, and how these effects might transfer through into adulthood.
- vi. The potential of nature as a therapeutic landscape for the improvement in health and wellbeing outcomes of men who struggle with various physical and mental health issues.
- vii. Investigation into the health related benefits, for men, of less intensive outdoor activities such as general gardening, growing fruit and vegetables, cultivating flowers, birdwatching and butterfly/moth/plant identification.
- viii. Systematic examination of the health and wellbeing benefits of regular connection with nature through passive outdoor activities amongst elderly males with reduced physical capacity.
- ix. The importance of taking regular quality 'time out' in nature for men employed in high pressure, socially dense work environments; the positive effect such recreation may have on both the individual's health and wellbeing, as well as that of his close family members and fellow workers.

- x. In-depth, longitudinal investigation into the health effects of outdoor recreational activities for men who struggle with the debilitating effects of Post Traumatic Stress Disorder (PTSD).

APPENDICES

Appendix A: Post Traumatic Stress Disorder (PTSD)

PTSD encompasses a characteristic set of symptoms that can develop in a person after directly confronting, witnessing, or experiencing an extreme traumatic event that involves actual or threatened serious injury, or threatened death, or a threat to the physical integrity of the self or others; or witnessing an event that involves death, injury or threat; or learning about unexpected threats, injury, serious harm, death or violent death experienced by close loved ones, associates, and family (American Psychiatric Association, 2013).

These traumatic events include, but are not limited to, war and combat, crimes committed by strangers, rape and sexual assault, domestic violence and sexual abuse, suicide of a loved one, vehicular accidents, natural and man-made catastrophes. PTSD may occur at any age. The most significant factors that influence the probability of developing PTSD are the severity, duration, and closeness of exposure to the traumatic event. The effects of multiple traumas can accumulate resulting in greater severity of symptoms, as opposed to single trauma events. Research indicates that certain personality traits, family history, support networks, childhood experiences, and pre-existing mental conditions may influence the development of PTSD. However, this disorder can develop in individuals exposed to extreme events, who do not have any predisposing conditions or factors (American Psychiatric Association, 2013; Matsakis, 1996).

PTSD including ASD (Acute Stress Disorder) was reclassified from the class of anxiety disorders in DSM-IV, into a new class chapter 'Trauma and

Stressor-Related Disorders' in DSM-5. The Diagnostic and Statistical Manual of Mental Disorders (DSM) is the standard classification of mental disorders used by mental health professionals in the USA and New Zealand. All of the conditions included in this classification require exposure to a traumatic or stressful event as a diagnostic criterion. The rationale for the creation of this new class is based upon clinical recognition of variable expressions of distress as a result of traumatic experience. The necessary criteria of exposure to trauma links the conditions included in this class; the homogeneous expression of anxiety or fear-based symptoms, anhedonic and dysphoric symptoms, externalizing anger or aggressive symptoms, dissociative symptoms, or some combination of those listed, differentiates the diagnoses within the class (American Psychiatric Association, 2013).

Comorbid complications of PTSD include:

- Substance Use Disorder.
- Generalised Anxiety Disorder/Major Depressive Disorder.
- Panic Disorder.
- Obsessive-Compulsive Disorder.
- Borderline Personality Disorder.
- Psychotic Disorders.
- Sleep Disorders.

(American Psychiatric Association, 2013; Matsakis, 1996).

Appendix B: Overview of International Literature

Author/s, Year, & location	Study Design/ Type of Publication	Sample Size/Sources	Assessment Measures/Methods	Findings supporting benefits of outdoor activity in natural/wilderness environments
Heintzman (2013). Canada	Systematic review of relevant empirical research.	18 published studies/reports	Synthesis of data & comparative analysis of findings.	Experience of spiritual benefits i.e. reflection on spiritual values likely to occur in more natural and wild environments. Solitude in the wilderness important factor for spiritual connection and inner reflection. Sense of oneness with life, inner peace, and strength. Compatible group members and wilderness environment important factors towards positive experiences.
Greffrath et al. (2012). South Africa	Crossover research design with mixed methods approach.	14 female and 14 male 3 rd year university students.	Recreation Experience Preference Scales. 5-point Likert type scale. Semi-structured one-on-one & focus group interviews. Computerised statistical analysis of data.	Experiencing the uniqueness of wilderness environments most important factor influencing personal experiences involving growth, change, development, awareness, relationship with self and life. Opportunity for 'time alone' or solitude important factor.
Heintzman (2012). Canada	Systematic review of empirical research studies.	22 published studies/reports	Synthesis & analysis of data using the behavioural model of outdoor education. Model framework includes antecedent conditions, setting, and recreation components.	High percentage of wilderness activity participants seeking a spiritual experience. The wilderness experience provides outdoor recreationalists with the opportunity to connect with a "deeper source, god or some type of higher power". Experience of wilderness & solitude resulted in inner calm, reflection, personal growth, sense of wonder & connection with the universe. Spiritual connection with other wilderness enthusiasts and like-minded group members.
O'Brien et al. (2012). UK	Case study of participants within 4 selected peri-urban woodland sites.	6 groups totalling 49 woodland users.	Assessment evidence was gathered ' <i>in situ</i> ', participant photo elicitation, post case study focus group, and interviews.	Access to infrastructure & managed sites important to some, others prefer more natural environments. Benefits of fresh air, calm, restoration, peace, manageable physical activity, stress reduction, heightened senses, and introspection of personal/life issues. Appreciation of nature. Social.

Annerstedt & Wahrborg (2011). Sweden	Systematic review of controlled and observational studies on NAT.	3 meta-analyses, 6 high grade evidence studies, & 29 low to moderate evidence grade studies.	Methodological quality, participant characteristics, intervention type, and abstracted data assessed for intervention studies relating to NAT and a defined disease.	Authors stated that significant improvements were found across a diverse range of diagnoses ranging from mental health and behavioural disorders to obesity and associated complications.
Greffrath et al. (2011). South Africa	Crossover design with mixed methods approach.	14 female and 14 male 3 rd year university students.	Semi-structured one-on-one post programme interviews, questionnaires, focus groups.	Found that experiences of solitude, personal space, and freedom of choice in a natural wilderness environment, had the biggest positive influence on personal development, effectiveness, and mental wellbeing compared to an urban indoors programme setting.
Johansson & Hartig (2011). Sweden	Experimental field study	10 men & 10 women (20-29 years).	Time of measurement (pre & post walking), in urban park or street (environment), with or without a friend/s (social context).	Walking did, on average, reduce levels of depression/anxiety/anger, & time constraint; and increased feelings of revitalisation, positive connection, & serenity. Some psychological benefits depended on social context (alone or with a friend) and/or urban outdoor environment (greenery, space, water i.e. natural landscapes or streets).
Bowler et al. (2010). U.K.	Systematic review and meta-analysis of crossover and controlled trial studies.	Twenty-five studies met the review inclusion criteria.	Measurements of health & wellbeing with exposure to natural environments compared to synthetic environments were assessed using quantitative synthesis of data.	Evidence suggested physical activity in natural environments, when compared to synthetic environments, led to more health related benefits like reduced levels of sadness, anger, anxiety & increased levels of energy & attention.
Townsend & Weerasuriya, (2010). Australia	Meta-analysis of Australian and international research.	300+ published studies/reports from the USA, England, Netherlands, Australia, and Denmark.	Summary of themes and similarities that emerged from the meta-analysis study.	Reduced levels & incidences of high-risk health factors such as obesity, diabetes, heart disease, and high blood pressure. Increased levels of physical fitness and general wellbeing. Physical activity in nature is beneficial in combating depressions and anxieties.
Godbey, (2009). USA	Research Discussion paper.	162 studies and research reports from USA and Europe.	Summarization of salient issues.	Reduced risk of heart attack or stroke. Reduction in levels of blood pressure, obesity, diabetes, stress, depression. Reduced levels of specific pain. Improved levels of muscle, bone, and joint strength, good sleep, physical fitness, weight loss, and overall sense of health and wellbeing.

Heintzman (2009). Canada	Systematic review of empirical studies and theoretical models.	63 published studies/reports	Synthesis of data. Comparative analysis & discussion on findings.	Both solitude and group experiences important to spiritual experience. Wilderness setting and type of activity, group members, & opportunity for solitude all contributing factors towards experiencing spiritual benefits.
Dickson et al. (2008). Australia	Systematic review of quantitative and qualitative research & reports.	Seven international studies, 89 research based articles, reports & theses, 21 Government reports.	Meta-analyses. Questionnaires e.g. Life Effectiveness Questionnaire (LEQ). In-depth interviews that were either cross-sectional or longitudinal in design.	Improved interpersonal & intrapersonal skills and connection, holistic health and wellbeing benefits across social, psychological, spiritual, & physical realms. Programme duration (longer the better) factor in programme efficacy.
Bell et al. (2007). Germany	Review of American & European epidemiological studies.	92 studies/reports undertaken in the USA, Sweden, Netherlands, Finland, & the UK.	Authors compared and summarised results from numerous replication studies and research reports.	Enhanced psychological & emotional wellbeing, reduction of stress/anxiety, improved relaxation and self-expression.
Nicholls & Gray (2007). Australia	Grounded Theory approach.	16 male & 2 female adolescents.	Pre and post interviews, questionnaires, focus groups.	Improved inter and intra personal development. Inner reflection, awareness, and growth.
Van den berg et al. (2007). Netherlands/Sweden	Systematic review & comparison report.	22 true and quasi-experimental studies.	Statistical analysis, comparison, and summary of results of experimental studies.	People strongly believe there are more restorative benefits to be gained with exposure to natural environments compared to built-up environments. Benefits that people actually experience in natural environments i.e. reduced blood pressure & levels of stress, improved concentration, mood, & energy strengthens preference for natural environments over non-natural environments.
Hartig & Staats (2006), Sweden/Netherlands	Comparative experimental studies.	3 experiments involving a total of 310 participants.	Statistical analysis, comparison, and summary of results of experimental studies.	More preference for walking 1 hour in a forest environment compared to a city centre. Motivated by a greater need and belief in psychological restoration (stress reduction, improved concentration, reduction in mental fatigue) occurring in a natural environment compared to a city centre.

Townsend & Ebden (2006). Australia	Mixed methods.	Study 1,2, & 3, n=80 Piolet project study n=10.	In depth unstructured interviews, focus groups, health surveys, clinical scale questionnaires.	Social connection, learning social skills, personal development, environmental education, and learning, enhanced levels of confidence, motivation, and interest in life, enjoyment, stress reduction, improved physical and mental health and wellbeing, community cohesion.
Brymer (2005). Australia	Phenomenological study.	4 female and 8 male extreme sports participants aged between 30 & 68 years.	Direct interviews, first and third hand accounts.	Enhanced concept of self and life, freedom from mental chatter, enhanced mental and physical ability, Deep connection with nature.
California Outdoor Recreation Planning Programme (2005). California	Systematic review & discussion report.	4 major large-scale study report publications, and over 100 additional smaller topic related studies post 1990.	Documentation and discussion on reviewed studies and their findings/outcomes.	Social bonds, family unity, stronger communities, reduction in crime, support for at risk youth, senior citizens, and those with disabilities. Promotion of cultural diversity and harmony.
Lynch (2005)	Doctoral Thesis Survey Study	191 agencies with 56 responses	Descriptive and inferential statistical analysis methods employed to plot frequency distributions and various relationships.	Outdoor adventure therapy being effectively used to treat, either as an adjunct to main treatment programme, or as standalone method of treatment, various disorders i.e. behavioural, emotional, cognitive and substance abuse.
Pryor et al. (2005). Australia	Examination of Outdoor education and bush adventure therapy intervention programs.	35 published studies and reports.	Analysis and discussion on programme context and goals and the participant's goals and needs.	Small groups of people who adventure together in natural environments benefit the health, wellbeing, and learning outcomes of individuals, and communities. Natural environments health and wellbeing is enhanced as a bi-product of human health, wellbeing, and learning intervention programmes.
Martin & Legg (2002). Australian	Mixed methods.	93 adults (18+).	Comparison of outcomes after similar outdoor activities undertaken over both 22 and 9-day wilderness courses.	Greater enhanced personal growth and interpersonal development over 22 days compared to 9 days – longer programme duration a positive factor.

Russell (2002). USA	Time series mixed methods research study.	858 youths (11-19 years) from 7 different wilderness programmes.	Youth Outcome Questionnaire (Y-OQ) & Self-Report-Youth Outcome Questionnaire (SR YOQ) - 3,6,12, month follow up.	Improved social behaviours, improved personal, interpersonal, and familial relationships. Improved sense of self and awareness of others.
Newes (2001). USA	Doctoral Thesis quantitative approach.	31 females 69 males average 14.5 years.	Various statistical analysis scales and measures, pre and post programme questionnaires, regression analysis.	Adventure therapy programmes may help to reduce recidivism, and improve self-discipline, self-esteem, attitudes towards others, interpersonal relationships, problem and decision making skills.
Russell & Hendee (2000). USA	Survey of outdoor behavioural health (OBH) programmes.	Survey sent to 116 OBH programmes. There were 86 respondents (74%).	Data were coded and entered into SPSS (Statistical Programme for the Social Sciences). Data were analysed with frequency distributions, descriptive statistics, & cross tabulations.	Personal development and growth through improved self-concept, interpersonal behaviour, and personal awareness. Improved self-esteem, life coping skills, social connection, and familial relationships.
Fluker & Turner (2000). Australia	Survey of participants before and after white water rafting, mixed methods.	344 participants over 17 separate trips.	Analysis of survey comparing experiences of participants with and without prior rafting experience.	<i>Experienced Participants:</i> Enhanced connection with friends, relaxation, maintenance of good health and wellbeing. <i>Inexperienced participants:</i> Challenge and excitement of white water rafting.
Hattie et al. (1997). Australia	Meta-analysis.	151 unique samples from 96 studies involving 12,057 unique participants	Quantitative synthesis of 1728 effect sizes to identify consistent themes & commonalities across all studies.	Notable health and wellbeing outcomes with long lasting positive effects – positive changes to self-perception and enhanced concept of self, improved inter-personal and intra-personal skills – however emphasis seems to be placed on positive findings, ignoring negative evidence.
Davis-Berman & Berman (1993). USA	Discussion article.	19 empirical & professional publications.	Discussion on summary of reviewed studies.	Proof of wilderness programmes therapeutic process and efficacy. Qualified mental health professionals essential. National accreditation and operational standards must be legislated in line with state laws. Wilderness programmes where therapeutic interventions are administered by qualified professionals can be extremely successful with lasting positive outcomes.

Appendix C: Overview of New Zealand Literature

Author/s & Year	Study Type/ Publication	Sample Size/Reviewed Sources	Assessment Measures/Methods	Findings supporting benefits of outdoor activity in natural/wilderness environments
Sport New Zealand (2015)	Nation-wide survey.	6,448 adults 16 years and over.	1. Sport & Recreation Survey – main survey plus follow-up survey. 2. Seven day physical activity recall diary. 3. Survey results based on estimates derived as part of weighting the data using NZ 2013 national census 'enumeration units' known as meshblocks.	Improved physical fitness. Weight management. Physical rehab/healing. Stress reduction. Cultural connection. Social connection. Enjoyment/happiness
Ministry of Health (2014)	Information Paper.	Unknown number of NZ health, medical, sport, accident, and recreational organisations.	Summary of evidence based and scientifically documented facts and findings relating to benefits of walking for New Zealanders.	Reduced risk of obesity, type 2 diabetes, heart disease, stroke, and some types of cancer. Improved muscle and bone strength, heart rate, balance, mobility, and weight loss. Improved mental and physical wellbeing. Improved sleep. Stress reduction and relaxation.
Moon (2014)	Online information article.	Various research reports and studies.	Summary of salient issues.	Reduction of negative moods & levels of stress, anxiety, and depression. Exercise in natural environments and outdoor gardening can improve mood, motivation, and feelings of wellbeing.
Blaschke (2013)	Systematic review report.	4 major international systematic reviews, 15 related NZ research studies.	Focused analysis and comparison of international research with NZ research.	Better physical health. Reduced blood sugar/pressure. Improved social and environmental connection. Reduction in stress. Improved mood & concentration. Deeper personal reflection

Brabyn & Sutton (2013)	Population based assessment.	40,000 Meshblocks (100 persons per block) used from Statistics NZ 2006 census	Geographical Information Systems used for statistical analysis of data.	Lifetime interest in natural environments and outdoor physical activity. Improved physical fitness. Reduction in obesity. Mental health wellbeing. Personal growth and inspiration. Social connection and interests.
Boyes (2012)	Sequential exploratory mixed-methods	7 interviewees. 80 survey participants.	Qualitative data collection (semi-structured interviews) & analysis, followed by quantitative data gathering (survey) and analysis.	Improved physical fitness, functionality, mobility, balance, sleep, longevity, concentration, and cognitive ability. Better control of negative emotions, improved feelings of wellbeing and life satisfaction. Reduction in stress. Improved sleep. Social connection, support, & belonging. Reduced health & social care costs.
Galloway (2012)	Quantitative tailored design method	270 Participants.	Survey methodology and online data collection followed by quantitative analysis.	Values, attitudes, & behaviours support place identity for recreation on rivers. These include enjoying nature, escaping life's pressures (stress reduction) socialising, valuing wilderness, learning new skills and overcoming challenges.
Lynch (2012)	Stocktake report on NZ Outdoor recreation research literature.	3 major large-scale outdoor recreation/education research reports.	Stocktake and synthesis of reviewed study findings.	NZ research has found physical, mental, social, and personal development benefits but majority of research focused on troubled young adults/ at risk youth with behavioural problems. Wide scope for health research on many topics.

Booth et al. (2011)	Major review of NZ outdoor recreation research	1135 publications identified and reviewed.	Characteristics of the literature described, compared, and similarities/differences/gaps identified.	Individuals, families, communities, should become more involved in outdoor recreational activity. Many health and wellbeing benefits attached to outdoor recreation i.e. improved physical, mental, and social health.
Cushman et al. (2011)	Quantitative survey methodology: First - open ended exploratory survey. Second main survey closed choice format.	First survey: 271 groups and organisations (response rate 24%). Second main survey: 418 groups and organisations (response rate 53%).	Descriptive statistical analysis used after data first analysed using SPSS (17.0).	70% of outdoor recreation groups and organisations chose 'leisure behaviour and demand' as the most important research theme, while 49% of them chose 'benefits and outcomes' as the next most important research theme priority for outdoor recreation in New Zealand.
Dalziel (2011)	Meta-Analysis research report.	70 NZ sport & recreation, research, and statistical organisations, & group publications.	Descriptive statistical analysis & estimations based on results of meta-analysis.	Improved physical and mental health can reduce stress & increase work productivity and economic output. Improved health reduces premature avoidable death and incidences of illness. Improved health and wellbeing can be gained from at least 30 minutes of moderate intensity physical activity on most days of the week.
Espiner et al. (2011)	Mixed-methods.	26 face-to-face interviews; postal survey with 484 respondents.	NVIVO used to identify key themes and groups from transcribed interview data. SPSS (17.0) used to analyse data from completed surveys.	Men outnumber women by as much as 9:1 in traditionally masculine outdoor recreational activities. Overnight or longer outdoor recreation trips preferred. Being in a natural environment and feeling at one with nature enhanced feelings of personal wellbeing and satisfaction.

Jansen & Pawson (2011)	Qualitative evaluation of NBAT programme using qualitative research methods	Four focus groups. 6-12 people in each group. Interviews lasted 1-2 hours.	Thematic analysis used to analyse data and identify major themes and success factors.	Improved physical fitness. Improved levels of mood, reduced levels of depression/anxiety. Reduction in substance abuse and anti-social behaviours. Personal growth and improved self-concept. Social and cultural connection.
Regional Public Health (2010)	Research information Paper.	66 local and international literature publications/reports on greenspace and open urban spaces.	Summary of findings on the connection between open spaces, health, wellbeing, and communities/groups/individuals.	Open spaces: promote contact with nature and cultural spaces. Encourages social cohesion & interaction. Promotes physical activity and relaxation and reduces stress, anxiety, and tension.
Reis et al. (2010)	Qualitative constant comparative method.	25 families 10 central/local government representatives.	In depth face-to-face interviews, recordings, field notes, transcripts thematically analysed for themes that were identified, clustered, and compared.	Health/fitness, family bonding, and social connection key findings. Families with younger children preferred camping, shorter day-walks, beach walks, cycling. Families with older children preferred overnight and longer tramps, sailing and mountain biking.
Waldegrave & Koopman-Boyden (2010)	Qualitative methodology used on 2 large-scale, national, random sample surveys.	1,958 midlife respondents, 40-64 year age group, (48.9% men, and 51.1% women).	Computer assisted telephone interviewing that resulted in a variety of case studies of particular groups using qualitative focus groups and in-depth interviews.	Recreational & leisure activity promotes self-identity and community integration. Major protective factor against physical impairments and medical issues related to older age. Outdoor activities produced high levels of physical wellbeing and mental functioning. Social connection with family and friends also produced high levels of wellbeing. The higher the satisfaction with a particular activity, the greater the sense of wellbeing experienced.
McKay, Donaldson, & Schroder (2009)	Qualitative evaluation of NBAT programme using qualitative research	4 focus groups comprising participants (n=6), Parents/caregivers (n=5), Stakeholders (n=4), & facilitators (n=3).	All data were analysed using thematic analysis to identify common themes which were initially coded into preliminary themes and then finally condensed into major themes.	Personal development, interpersonal relationship improvement, and increased self-confidence key findings. Better problem solving and decision making skills. Increased personal stability.

	methods			
Mossman (2005)	Mixed methods comparative study.	Quantitative study (n=89). Qualitative study (n=14) Age 12-18 years. Majority males	Questionnaires. One on one interviews with participants. Staff, parents, and counselors included in interview process. Close observation of all participants throughout the NBAT programme.	Statistically and clinically significant improvements on multiple measures of mental health issues i.e. depression, anxiety, & behavioural disorders.
Martin & legg (2002)	Mixed methods comparative study.	22 day outdoor programme (n=54). 9 day programme (n=39).	Analysis of data & comparative evaluation of specific outcomes and processes.	Enhanced personal and interpersonal development. Increased self-belief, confidence, communication assertion, and inner strength. Greater change experienced on 22 day outdoor programme that also included 'solo or time alone' modules. Programme duration important factor in personal change.
Eggleston (1996)	Qualitative evaluation of NBAT programme.	11 males & 1 female (13-16 years).	One-on-one semi-structured interviews at end of programme. Follow-up interviews 12-18 months later. Thematic analysis used to analyse interview findings.	Personal, physical, and cultural development and satisfaction. Personal change did not happen in isolation. Family/social support and community involvement vital to sustained positive outcomes. Reduction in substance abuse. Social connection and cohesion very important in effecting lasting healthy changes for participants.

Appendix D: Human Ethics Approval Letter



HUMAN ETHICS COMMITTEE

Secretary, Lynda Griffioen
Email: human-ethics@canterbury.ac.nz

Ref: HEC 2014/73

11 August 2014

Russell Blackney
School of Health Sciences
UNIVERSITY OF CANTERBURY

Dear Russell

The Human Ethics Committee advises that your research proposal "The experiences of men who enjoy fishing and/or tramping in the great outdoors of New Zealand" has been considered and approved.

Please note that this approval is subject to the incorporation of the amendments you have provided in your email of 11 August 2014.

Best wishes for your project.

Yours sincerely

A handwritten signature in black ink, appearing to read 'L. MacDonald'.

Lindsey MacDonald

Chair

University of Canterbury Human Ethics Committee

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Appendix E: Participant Information Sheet

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PARTICIPANT INFORMATION SHEET

Research Project: What are the experiences of men who enjoy fishing and/or tramping in the great outdoors of New Zealand?

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Mobile: 022 3508359

Email: russell.blackney@pg.canterbury.ac.nz

My name is Russell Blackney and you are invited to participate in a research study that will be exploring the personal experiences of men who enjoy fishing and/or tramping as a form of outdoor recreation. I am undertaking a Master's Thesis Research Study through the University of Canterbury's School of Health Sciences. My primary interest is in the health and wellbeing of New Zealand men who regularly pursue some form of outdoor recreational activity in New Zealand's great outdoors.

What will I be asked to do?

You will be asked to participate in a +/- 60min informal interview with the researcher, Russell Blackney at a time and place that is convenient to you. You will be asked for permission to audio-tape the interview and you will be able to review and amend the transcript of the interview should you choose to do so. You may also receive a brief follow up phone call within four weeks after the interview to clarify and confirm any unclear comments or sections of the transcript analysis. Your participation is voluntary; you may choose not to answer any questions that you do not want to answer, and you may withdraw yourself and any data (information) that you have

provided at any time without having to give a reason. The only exception to this would be any data that has reached the draft phase of the thesis research study. Your name and any personal details you provide will be kept strictly confidential and secure. You will not be personally identified in any reports about the study without your prior permission. Your name or any other personal identifying factors will not be used in any reports relating to the study.

What questions will I be asked?

You will be asked questions relating to your fishing and/or tramping experiences in the great outdoors of New Zealand i.e. why do you enjoy fishing/tramping, what does it mean to you to be able to fish and tramp in the great outdoors, when do you fish/tramp, where do you fish/tramp, and how important is fishing/tramping to your overall lifestyle.

What will happen to the information?

Audio tapes will be transcribed and analysed by the principal researcher. No other persons will have access to these data which will be stored in a locked steel cabinet and on a password protected laptop.

What will happen to the results of this study?

- All participants will be offered a summary of study results.
- Study results may be published in peer-reviewed journals.
- Study results may be presented at conferences.
- All data results will be destroyed after 5 years.

Who pays for the research?

This research project is being carried out as a requirement for the University of Canterbury's Master in Health Sciences Degree (with endorsement in Mens Health) by Russell Blackney under the supervision of Dr Jeffrey Gage who can be contacted by phone on 03 366-7001 or by email Jeffrey.gage@canterbury.ac.nz. Dr Gage will be pleased to discuss any concerns you may have about participation in this research project.

Who has reviewed this study?

This study has received ethical approval from the Human Ethics Committee of the University of Canterbury.

What do I do now?

If you wish to participate in this study you will be asked to complete a consent form. For further information please contact Russell Blackney by mobile phone or email:

Mobile: 022 3508359

Email: russell.blackney@pg.canterbury.ac.nz

Who do I contact if I have any concerns about this research?

Participants should address any complaints or concerns to:

The Chair,
Human Ethics Committee,
University of Canterbury,
Private Bag 4800, Christchurch
email: human-ethics@canterbury.ac.nz

Thank you for your consideration of participation in this study

Yours sincerely

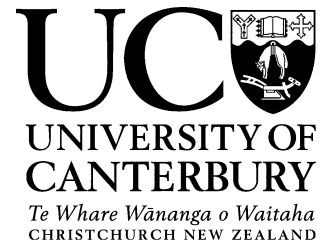
Russell Blackney

Appendix F: Consent to Participate Form

School of Health Sciences

Tel: +64 3 364 2987, Fax: + 64 3 364 2490

Email: healthsciences@canterbury.ac.nz



CONSENT TO PARTICIPATE

Research Project: “What are the experiences of men who enjoy fishing and/or tramping in the great outdoors of New Zealand?”

Principal Researcher: Russell Blackney, Master’s Thesis Student, University of Canterbury.

Mobile: 022 350 8359

Email: russell.blackney@pg.canterbury.ac.nz

-
- I have read the Information Sheet. I understand what this research study is about and my questions have been answered.
 - I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study and any data I have provided at any time and for any reason.
 - I understand that findings of this study may be published in an academic journal or presented at a conference but I will not be personally identified in any publication or presentation. All personal information including my identity will be kept completely confidential.
 - I have had time to consider whether to take part.
 - I know who to contact if I have any questions or concerns in regard to participating in this study.
 - I wish to review the transcript of the interview: YES/NO
 - I wish to receive a summary of the findings: YES / NO

Signature:

Date:

Contact Information:

Name:

Address:

Phone:

Email:

Appendix G: Information Flyer

School of Health Sciences

Tel: +64 3 364 2987,

Fax: + 64 3 364 2490

Email: healthsciences@canterbury.ac.nz



INFORMATION FLYER/EMAIL NOTICE

Principal Researcher: Russell Blackney, Master's Thesis Student, University of Canterbury.

Mobile: 022 3508359

Email: russell.blackney@pg.canterbury.ac.nz

My name is Russell Blackney and you are invited to participate in a research study that will be exploring the personal experiences of men who enjoy fishing and/or tramping as a form of outdoor recreation. I am undertaking a Master's Thesis Research Study as a requirement for the Master in Health Sciences Degree (with endorsement in Mens Health) through the University of Canterbury's School of Health Sciences. My primary interest is in the health and wellbeing of New Zealand men who regularly pursue some form of outdoor recreational activity in New Zealand's great outdoors.

You will be asked to participate in a +/- 30min informal interview with the researcher, Russell Blackney at a time and place that is suitable to you. You will be asked questions relating to your fishing and/or tramping experiences in the great outdoors of New Zealand i.e. why do you enjoy fishing/tramping, what does it mean to you to be able to fish and tramp in the great outdoors, when do you fish/tramp, where do you fish/tramp, and how important is fishing/tramping to your overall lifestyle.

Your participation is voluntary; you may choose not to answer any questions that you do not want to answer, and you may withdraw yourself and any data (information) that you have provided at any time without having to give a reason. Personal confidentiality is guaranteed. However please note that the actual research data cannot be removed once the thesis is in draft form.

If you would like to participate in this study you will be asked to complete a consent form. For further information please contact Russell Blackney by mobile phone 0223508359 or at russell.blackney@pg.canterbury.ac.nz

Thanking you,

Russell

Appendix H: Interview Questions for Anglers

1. When did you first realize you enjoyed fishing (and why)?
2. Where did you catch your first fish (who were you with/how did it feel)?
3. What is your preferred fishing locations, i.e. freshwater - rivers, dams, streams and/or saltwater - surf, rocks, small boat, deep sea (what has determined your preference for this/these locations)?
4. Who do you fish with (and why)?
5. How often do you go fishing (how long have you been actively fishing)?
6. How do you feel leading up to a fishing trip?
7. How do you feel at the end of a fishing trip?
8. What would it mean for you if you could not go fishing (how would you feel)?
9. What health and wellbeing effects (e.g. social, physical, mental, and spiritual) do you think fishing offers you?
10. On a scale of 1-10, with 10 being very important and 1 being not important, how important is fishing to you as part of your lifestyle?

Appendix I: Interview Questions for Trampers

1. When did you first realize you enjoyed tramping (and why)?
2. Where did you complete your first tramp (who were you with/how did it feel)?
3. What is your preferred tramping locations, i.e. Alpine, forest, coastal, hills, along waterways etc (what has determined your preference for this/these locations)?
4. Who do you tramp with (and why)?
5. How long have you been actively tramping (how often do you go tramping)?
6. How do you feel leading up to a tramping trip?
7. How do you feel at the end of a tramping trip?
8. What would it mean for you if you could not go tramping (how would you feel)?
9. What health and wellbeing effects i.e. social, physical, mental, and spiritual) do you think tramping offers you?
10. On a scale of 1-10 with 10 being very important and 1 being not important, how important is tramping to you as part of your lifestyle?

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